

09/673395

529 Rec'd PCT/PTC 17 OCT 2000

## Sequence Protocol

&lt;110&gt; metaGen Gesellschaft für Genomforschung mbH

&lt;120&gt; Human Nucleic Acid Sequences from Uterus Tumor Tissue

&lt;130&gt; 51586AWOM1XX24-P

&lt;140&gt; PCT/DE99/01174

&lt;141&gt; 1999-04-14

&lt;160&gt; 635

&lt;210&gt; 1

&lt;211&gt; 1046

&lt;212&gt; DNA

&lt;213&gt; homo sapiens

&lt;400&gt; 1

004221 56664960

```

tcggaacgag ggatcactaa tcaacaaacc agctttcggg gtctgacgag atccttgccct 60
caggcctctc gaggtccaga cagccgcccc gcccgctctg cgacgcagca gtgaatagtg 120
tggtacctcc ttgtctcggt tcagggtccag acctccccgt cttccggctg ccctgaacgt 180
caggcgacct caggaccctg tgattggcgc ctgcgcgggc ggaccgtgac cgaggaaacc 240
cctggaggga cttgggcatt ccttgggctc cgtgcctgtt cttcgtgctc ctttcggggc 300
aaggatctca cattatcagt ctttgaccga cacagaatgc ctggcatttg ataaatgttt 360
gttgaacttg aagagacata tggacaatga atctgcaaag atactgggga gagataccaa 420
tatcatcaag ccagaccaac agaagttcct tcgatttgct cccacgggag ttccgtctgg 480
tggaagtcca tgaccacccc ctgcaccaac cctcagccaa caagccgaag cccccacta 540
tgctggacat cccctcagag ccatgtagtc tcaccatcca tacgattcag ttgattcagc 600
acaaccgacg tcttcgcaac cttattgcca cagctcaggc ccagaatcag cagcagacag 660
aagggtgtaaa aactgaagag agtgaacctc ttccctcgtg ccctgggtca cctcctctcc 720
ctgatgacct cctgccttta gattgtaaga atcccaatgc accattccag atccggcaca 780
gtgaccaga gagtgacttt tatcgtggga aaggggaacc tgtgactgaa ctcagctggc 840
actcctgtcg gcagctctc taccaaggca gtggcacaaa tctgggcca cggcgggctt 900
ttgactgtgc taatgagagt gtcttggaag accctaactt gatgttggca catgagtatt 960
ggccttaaag tttaccaaag tttgctgcgt ttttgctgtt gagcgggaag cccgggtggg 1020
agagacttcc ttttgccgaa tgtgat
1046

```

&lt;210&gt; 2

&lt;211&gt; 373

&lt;212&gt; DNA

&lt;213&gt; homo sapiens

&lt;400&gt; 2

```

cgaaggcaga gttcaacagg gatcttttgt aaatgttcaa caagggccac aggagccatt 60
tattgaattt atccatcagt taaccaggc aattaagagc acacatggaa catcgaccat 120
tccacgggta tctcgtataa cctcaaggga caagccatag tggaacgttg cccattccac 180
gcttaaaaat atgctttaa aaaaggggga atatgaataa ggaccctaca acactactag 240
cacaagtgtt attcaccctt aatttcttaa atttagataa ttaaatttcc aatcagccct 300
agaaaagcac ttttgcttaa aacctcccca ggtagcaagg ctttcagtgt tttgggaagg 360
tgtaatatgt atc
373

```

&lt;210&gt; 3

&lt;211&gt; 1571

&lt;212&gt; DNA

&lt;213&gt; homo sapiens

&lt;400&gt; 3

```

ctgctctggc aaccaataga agctaggaga gggcggggac aactgggtct tttgcggctg 60

```

```

cagcgggctt gtaggtgtcc ggctttgctg gcccagcaag cctgataagc atgaagctct 120
tatcttttggg ggctgtgggc ggggtgttgc tgggtccccc agctgaagcc aacaagagtt 180
ctgaagatat ccggtgcaaa tgcattctgtc caccttatag aaacatcagt gggcacattt 240
acaaccagaa tgtatcccag aaggactgca actgcctgca cgtggtggag cccatgccag 300
tgcctggcca tgacgtggag gcctactgcc tgcctgtgca gtgcaggtac gaggagcgca 360
gaccaccacc atcaaggtca tcattgtcat ctacctgtcc gtggtgggtg ccctgttgc 420
ctacatggcc ttcttgatgc tgggtggacc tctgatccga aagccggatg cataactga 480
gcaactgcac aatgaggagg agaattgagga tgctcgctct atggcagcag ctgctgcac 540
cctcggggga ccccgagcaa acacagtcct ggagcgtgtg gaaggtgcc agcagcgggtg 600
gaagctgcag gtgcaggagc agcgggaagac agtcttcgat cggcacaaga tgctcagcta 660
gatgggctgg tgtgggtggg tcaaggcccc aacaccatgg ctgccagctt ccaggctgga 720
caaagcaggg ggctacttct cccttccctc ggttccagtc ttccctttaa aagcctgtgg 780
catttttctt ccttctccct aacttttagaa atgttgtact tggctatttt gattagggaa 840
gagggatgtg gtctctgatc tccgttgtct tcttgggtct ttgggggtga agggaggggg 900
aaggcagggc agaagggaat ggagacattc gaggcggcct caggagtgga tgcgatctgt 960
ctctcctggc tccactcttg ccgccttoca gctctgagtc ttgggaatgt tgttaccctt1020
ggaagataaa gctgggtctt caggaactca gtgtctggga ggaaagcatg gcccagcatt1080
cagcatgtgt tcttttctgc agtgggtctt tatcaccacc tccctccag cccagcgcc1140
tcagccccag cccagctcc agccctgagg acagctctga tgggagagct gggccccctg1200
agcccactgg gtcttcaggg tgcactggaa gctgggtgtc gctgtccctt gtgcacttct1260
cgactgggg catggagtgc ccatgcatac tctgtgccc gtcccctcac ctgcacttga1320
ggggtctggg cagtccctcc tctccccagt gtccacagtc actgagccag acggctgggt1380
ggaacatgag actcgaggct gagcgtggat ctgaacacca cagccctgt acttgggttg1440
cctctgtcc ctgaacttcg ttgtaccagt gcatggagag aaaattttgt cctcttgtct1500
tagagtgtg tgtaaatcaa ggaagccatc attaaattgt tttatttctc tccaaaaaaa1560
aaaaaaaaa a 1571

```

<210> 4

<211> 1789

<212> DNA

<213> homo sapiens

<400> 4

```

agaccatgct ggaaaaaatt ccaaaggaag agcaagaaga gacgtctgca attcgagtgg 60
gttttatcac atataacaaa gttctccatt tctttaatgt gaagagtaat ctggcccagc 120
ctcagatgat gggggtgact gatgttggag aagtctttgt tcctttgttg gatggtttcc 180
ttgtcaacta tcaagaatcc caatctgtga ttcataattt gttggaccag attccagaca 240
tgtttgcaga ctctaatgaa aatgagactg tctttgtctc tgtcatccag gctggcatgg 300
aagcactaaa ggcagcagac tgtcctggga agctgttcat cttccattct tccttgccaa 360
ctgctgaagc accagggaag ctcaaaaaca gagatgacaa aaaactgggt aatacagaca 420
aagagaagat acttttccag ccccaaacaa atgtctatga ctcatggcc aaggactgcg 480
tggctcaccg gctgctctgt gacactcttc ctctttccta gtcagtatgt ggacgtggcc 540
tcgctggggc tggttcctca gctcactgga ggaacccttt acaaatacaa caatttccag 600
atgcacttgg atagacaaca atttttgaac gacctcagaa atgatattga aaagaaaata 660
ggctttgatg ctattatgag ggttcgtacc agcacagggt tcagagccac tgatttcttt 720
ggtggaatct tgatgaacaa caccaccgat gtagaaatgg ctgccatcga ttgtgacaag 780
gcagtgaccg tggagttaa gacgatgac aaactcagt aagacagtgg agccttaatc 840
cagtgtgctg tgctttacac gacaatcagt ggtcaaagaa gacttcggat tcacaatctt 900
ggcttaaaact gcagctctca gctagctgat ctttataaga gctgtgagac agatgctctt 960
atcaacttct ttgccaaagtc agcttttaaa gcagttctcc accagccttt gaaggctcatc1020
cgggaaattc tagttaatca gactgcccac atgttggcat gttaccggaa gaattgtgca1080
agtcttctg cagcaagcca gcttattcta ccagattcca tgaaagtatt gccagtgtac1140
atgaattgct tgttgaaaaa ctgtgtacta ctacagcagac cagagatctc aactgatgaal200
cgagcatacc agagacagct ggtcatgacc atgggtgtgg ctgactctca gcttttcttc1260
taccacaaac ttctgcccac acacacgtta gatgtcaaga gtacaatgtt acctgctgcc1320
gttcgttgc ctgagtcctc tctttcagaa gaaggaaat tcttactggc taatgggtctal380
cacatgttcc tgtggttggg agtaagcagc ccaccagaac tgatccaagg aatattttaat1440
gtgccatctt ttgcacatat caacacagat atgacattgc tgctgaagt gggaaaccca1500
tactctcaac aactcagaat gataatgggt attatccaac aaaagaggcc atattcaatg1560
aagctcacia ttgtaaagca gcgagaacaa ccagaaatgg ttttccgaca gttcctggta1620
gaagacaaag gactttacgg aggtctctct tatgtggatt tctttgttg tgttcacaag1680
gagatctgtc agctgcttaa ttaattggaa actccccgg caatggaggt tgcgttgcca1740

```

gggggggaaa agccccctttt tggggcccaa atttgccagg gggaaaaaag

1789

<210> 5

<211> 2361

<212> DNA

<213> homo sapiens

<400> 5

gggccagccg gctcgcccg gggccatggc agcagcggct actgcagccg aggggggtccc 60  
cagtcggggg cctcccgggg aagtcatcca tctgaatgtg ggaggcaaga gattcagtac 120  
ctctcgccag actctcacct ggatcccaga ctcccttctc tccagtcctc tgagcggacg 180  
catctcgacg ctgaaagatg agaccggagc aatcttctac gacagggacc ctacagtctt 240  
cgcccccatc ctcaacttcc tgcgcaccaa agagttggat cccaggggtg tccacggttc 300  
cagcctcctc catgaagccc agttctatgg gctcactcct ctggttcgtc gcctgcagct 360  
tcgagaggag ttggatcgat cttcttgggg aaacgtcctc ttcaatgggtt acctgccgcc 420  
accagtgttc ccagtgaagc ggcggaaccg gcacagccta gtggggcctc agcagctagg 480  
aggacggcca gccccgtcc gacggagcaa cacgatgccc cccaacctg gcaatgcagg 540  
gctgctgggc cgaatgctgg atgagaaaac cctccctca cctcaggac aacctgagga 600  
gccggggatg gtgcgcctgg tgtgtggaca ccataattgg atcgctgtgg cctataccca 660  
gtttctagtc tgctacaggt tgaagggaagc ctctggcggg cagctgggtg tttccagccc 720  
ccgcctggac tggcccatgc gaacgactgg cgcttcacag cccgggtgca tgggtggggct 780  
ttgggtgaac atgacaagat ggtggcagca gccacggca gcgagatcct gctatgggct 840  
ctgcaggcgg aaggcgggtg tcgtcgggaa ccagctcatt gctacaagcc acacaggcg catcgggggtg 960  
tggaatgccg tcaccaagca ctggcaggtc caggaggtgc agcccatcac cagttatgac 1020  
gcggcaggct ccttcctcct cctgggctgc aacaacggct ccatttacta cgtggatgtg 1080  
cagaagtccc ccttgcgcat gaaagacaac gacctccttg tcagcgagct ctatcgggac 1140  
ccagcggagg atggggtcac cgccctcagt gtctacctca cccccaagac cagtgcagct 1200  
gggaactgga tcgagatcgc ctatggcacc agctcagggg gcgtgcgggt catcgtgcag 1260  
cacccgga ctgtgggtc ggggcctcag ctcttcaga ccttcaactg gcaccgcagc 1320  
cctgtcacca agatcatgct gtcggagaag cacctcatct cagtctgtgc cgacaacaac 1380  
cacgtgcgga catggtctgt gactcgcttc cgcgcatga tttccaccca gcccggtcc 1440  
accctactcg cttcctttaa gatcctggct ctggagtcgg cagatgggca tggcggtgc 1500  
agtgtggca atgacattgg cccctacggg gagcgggacg accagcaagt gttcatccag 1560  
aagggtggtg ccagtgcag ccagctcttc gtgcgtctct catctactgg gcagcgggtg 1620  
tgctccgtgc gctccgtgga cggctcacc acgacagcct tcacagtgtc ggagtgcag 1680  
ggctcccggc ggctcggctc tcggccccgg cgctacctgc tcaactggca ggccaacggc 1740  
agcttgcca tgtgggacct aaccaccgcc atggacggcc tcggccaggc ccctgcagg 1800  
ggcctgacgg agcaagagct gatggaacag ctggaacact cccgcattct cctcaccagc 1860  
ccttcagctc cctcatgggg ctgtctcccc agccccctac cccgcattct cctcaccagc 1920  
ctccactcag cctccagcaa cacctccttg tctggccacc gtgggagccc aagcccccg 1980  
caggctgagg cccggcgccg tgggtggggc agctttgtgg aacgctgcca ggaactggtg 2040  
cggagtgggc cagacctccg acggccaccc acaccagccc cgtggccctc cagcgggtctc 2100  
ggcactcccc tcacacctcc caagatgaag ctcaatgaaa cttccttttg aacaacgcag 2160  
ctgccatgat gccttgggat gccctgggtc tgggggactc aggtgcctcc ctgattcctg 2220  
tgggaacccc ggggttcaggg ccagggcctc cttggaataa atggttattg ttactaggtc 2280  
cccaccttcc ctcttttctg gaagccaaag tcacctccc caataaagtc ctcactgcc 2340  
aaaaaaaaa aaaaaaacc g 2361

<210> 6

<211> 1638

<212> DNA

<213> homo sapiens

<400> 6

ggctgcggat ttcgccggaa atcccggaa tgacagcttt gggggtttgc tgctggctct 60  
gactcccgtc ctgcgatggg ttgcgacggg ggaacaatcc ccaagaggca tgaactgggtg 120  
aagggggcca agaaggttga gaaggtcgac aaagatgctg aattagtggc ccaatggaac 180  
tattgtactc taagtcagga aatattaaga cgaccaatag ttgctgtgta acttggcaga 240  
ctttataaca aagatgccgt cattgaattt ctcttgga aatctgcaga aaaggctctt 300  
gggaaggcag catctcacat taaaagcatt aagaatgtga cagagctgaa gctttctgat 360

```

aatcctgcct gggaagggga taaaggaaac actaaagggtg acaagcacga tgacctccag 420
cgggcgcggt tcatctgccc cggtgtgggc ctggagatga acggccgaca caggttctgc 480
ttccttcggt gctgcggctg tgtgttttct gagcgagcct tgaaagagat aaaagcggaa 540
gtttgccaca cgtgtggggc tgccttccag gaggatgatg tcatcgtgct caatggcacc 600
aaggaggatg tggacgtgct gaagacaagg atggaggaga gaaggctgag agcgaattgg 660
aaaagaaaaa aaagaaaccc aaggcagcag agtctgtttc aaaaccagat gtcagtgaag 720
aagccccagg gccatcaaaa gttaagacag ggaagcctga agaagccagc cttgattcta 780
gagagaagaa aaccaacttg gctccaaaaa gcacagcaat gaatgagagc tcttctggaa 840
aagctgggaa gcctcgtgtg ggagccacaa agaggtccat cgctgacagt gaagaatcgg 900
aggcctacaa gtccctcttt accactcaca gctccgcaa gcgctccaag gaggagtctg 960
cccactgggt caccacacag tctactgct tctgaagccc gcactgccac cgctcctgcc1020
ccagaagggt gtttagtttc cactgtaggca ggtcgctttg tgctctgag tgcgctgctg1080
tgtgttctct ctatagttct gtgtcataaa gctgtcctgg ccagccttca agctgggtgtg1140
gccactcttg atgtgaggcg tgcggttcc aggggggaca tgggaggggc tgcacagtgg1200
cccgaggtca tgcttgcttc cactgacagg tgcatattgg cctttccatg gccaggaagc1260
cctgtggggt gcacttttta tgcttgacag aacaagagac tccagagtcc tcaccggtgc1320
agagtggca catattaatt aactaaaatt ctaatgatct tgctaccagc aataaatcaal380
gtaggccaag tgaaactggg ctttaaaaag gatggatttc aaatacactg tgcccactag1440
aagcttcgaa gggcctcgtc cctctgctac agccctggga ggagccagga tccttggttg1500
tctagctaaa tactgttagg ggagtgtgcc ccatctcatc atttcgaaga tagcagagtc1560
atagttgggc acccggtgat tgggttcaaa aataaagctg gtctgcctct tcaaaaaaaa1620
aaaaaaaaa aaaaaaaa
1638

```

<210> 7  
 <211> 1034  
 <212> DNA  
 <213> homo sapiens

<400> 7

```

cgctcgcgcg ctgagtgcgt gccgctccgc cgaccgaaga ggctggacat gacaccagtg 60
gcatacacag gccatggggg ctcagcattc cgctgctgct cgccctcct cctgcaggcg 120
aaagcaagaa gatgacaggg acggtttgct ggctgaacga gagcaggaag aagccattgc 180
tcagttccca tatgtggaat tcaccgggag agatagcatc acctgtctca cgtgccaggg 240
gacaggctac attccaacag agcaagtaaa tgagttgggt gctttgatcc cacacagtga 300
tcagagattg cgccctcagc gaactaagca atatgtcttc ctgtccatcc tgctttgtct 360
cctggcatct ggtttgggtg ttttcttct gtttcgcgat tcagtccttg tggatgatga 420
cggcatacaa gtgggtgaaa tcacatttaa taagcaagac tcccttgtaa ttctcaccat 480
catggccacc ctgaaaatca ggaactccaa cttctacacg gtggcagtga ccagcctgtc 540
cagccagatt cagtacatga acacagtggt gaattttacc gggaaggccg agatgggagg 600
accgttttcc tatgtgtact tcttctgcac ggtacctgag atcctgggtg acaacatagt 660
gatcttcatg cgaacttcag tgaagatttc atacattggc ctcatgaccc agagctcctt 720
ggagacacat cactatgtgg attgtggagg aaattccaca gctatttaac aactgctatt 780
ggttcttcca cacagcgctt gtagaagaga gcacagcata tgttcccaag gctgtgattc 840
tgggacctac cccacgtgg gtgttaaggc agagggaagg aattgggttc ctttaacttc 900
ccaggcaaac attcctcctg gccacttagg gagggaaaca ccttccctat gggttaccat 960
ttgttgtttg ttcaggaacc aggcggattc agttgcctag gcgtgttgcc ccagcaatta1020
gtttgggcat tgca
1034

```

<210> 8  
 <211> 947  
 <212> DNA  
 <213> homo sapiens

<400> 8

```

cgaggccctg gcatgtgcaa agagtactga gtgggattcc cagcaggata ccatcaagta 60
ctacaccatg cacctgacca cattgtgcaa cacgtgattg gacaacccaa cccagagaaa120
caaggatcag ctgatccggg cagccgtgaa gtttctggac accgacacca tctgctacag180
ggtggaggag cccgagacat tagtggaact tcaaaggaat gagtgggac caatcatcga240
atgggctgag aaaagatacg gcgtggagat cagctcctcc accagcataa tgggacctag300
catcctgcc aaaactcggg aggtgctcgt cagccacctg gcatcttaca acacatgggc360
tttacaaggg attgagtttg tagctgcccc gctcaagtcc atgggtgctaa ccttgggcct420

```



gattgacctg cgctgacag tggagcaggc cgtgctgctg tcacgcctgg aggaggagta480  
ccagatccag aagtggggca acattgagtg ggcccatgac tatgagctgc aggagctgcg540  
ggcccgacc gccgcccga ccctcttcat ccatctctgc tccgagagca ccacagtcaa600  
gcacaagctc ctgaaggagt gaggcctggg cagagcacac tcagcaggat agaggcagt660  
cagccacagc tccccggcc ttcagggtc cccagcctgt ggggctggct tccttggct720  
ttggggactc ggcctcagcg tcacctgag attccccccg agacacagt cgctagtacg780  
gctgtccgga ggtcagcctg atttcaacc aggtgcccct ggccctggcca gcagtgaatg840  
taggagatga attgtgcaag tgactttctc tcgactctga ttttattaaa tatttctcca900  
ccctggaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 947

<210> 9  
<211> 497  
<212> DNA  
<213> homo sapiens

<400> 9

ctcgtggcga gagactgaga taaaagagca actcactgaa cacctttgta cgatcataca 60  
gcaaaatgag ctccgaaagg ccaagaagtt ggaggagttg atgcaacaac tagatgtaga120  
agccgatgaa gagacttttg agcttgaggt ggaggctcag agattgctac acgaacaaga180  
agtagaatca aggagaccag tgggttcgttt agagaggcca tttcagcctg cggaggagag240  
tgtgacatta gaatttgcta aagagaacag aaagtgtcaa gaacaagctg tttccccaaa300  
ggtagatgac cagtgtggaa attccagtag catccccctt cttagtccaa actgccccaaa360  
tcaagaaggt aatgacattt cagctgcttt ggccacatga agttctggta ttcttttgag420  
ctaatatggg attgagtaaa gtatactttt tgcagtagat catgccctga cctccaataa480  
aaacctcttt aaaacaa 497

<210> 10  
<211> 269  
<212> DNA  
<213> homo sapiens

<400> 10

cggggagagg tgggctgggc tgcaggctct ggcgttgctg tggatcatcg cgcccgact 60  
ctgaagtttt ctccgtggcg ctcccttgaga ggggttcctc ctgcatcttg agaatat120  
gcatttcggc tcccttctct tctcgtgccc atcggatgcc ccaaataagg cctgtcccct180  
cggtgaatca gacttcggaa accgcctcgc ttcagggtca gagtccaagt acagatgagc240  
ttgagaggga ttctgaaatg caacggccc 269

<210> 11  
<211> 1717  
<212> DNA  
<213> homo sapiens

<400> 11

attctaggac caacactcct gtggagacgt ggaaagggttc caaaggcaaa cagtcctata 60  
cctacatcat tgaggagaac actaccacga gcttcacctg ggccctccag aggaccactt 120  
ttcatgaggc aagcaggaag tacaccaatg acgttgccaa gatctactcc atcaatgtca 180  
ccaatggtat gaatggcgtg gcctcctact gccgtccctg tgccctagaa gcctctgatg 240  
tgggctcctc ctgcacctct tgtcctgctg gttactatat tgaccgagat tcaggaacct 300  
gccactcctg cccccctaac acaattctga aagcccacca gccttatggg gtccaggcct 360  
gtgtgccctg tgggtccagg accaagaaca acaagatcca ctctctgtgc tacaatgatt 420  
gcaccttctc acgcaacact ccaaccagga ctttcaacta caacttctcc gctttggcaa 480  
acaccgtcac tcttgctgga gggccaagct tcacttccaa aggggtgaaa tacttccatc 540  
actttaccct cagtctctgt ggaaaccagg gtaggaaaat gtctgtgtgc accgacaatg 600  
tctactgacct ccggattcct gagggtgagt cagggttctc caaatctatc acagcctacg 660  
tctgccaggc agtcatcatc cccccagagg tgacaggcta caaggccggg gtttctctac 720  
agcctgtcag ccttgctgat cgacttattg ggggtgacaac agatatgact ctggatggaa 780  
tcacctcccc agctgaactt ttccacctgg agtccttggg aataccggac gtgatcttct 840  
tttataggtc caatgatgtg acccagtcct gcagttctgg gagatcaacc accatccgcg 900  
tcagggtgcag tccacagaaa actgtccctg gaagtttgct gctgccagga acgtgctcag 960

09673995-12200



ccaccaaagg caaataaagt tattgagtgt ttagtagaaa ggaaaaaaaa aaaaaaaaaa660  
aaaagtcgac c 671

<210> 14  
<211> 524  
<212> DNA  
<213> homo sapiens

<400> 14

aagtgttctc agatgctgat gtttgtaagg tcccgggtggg gccatgagga agaagaggag 60  
ctgaaggtaa gagactcata aacaagatga ctctttgatg catgaacaag atttgaaaat120  
ctcaagcctg taaagaatac ccctgctatt taaataaagc tcataccaag aggtaacatt180  
ttgccccggg ccaaattcag gggcttagtg ccctgcattc ctttgaggca aaaaataaat240  
gggctatgac tggttaaatg tccaaaagggt gaattctcat ttcatcctaaa caaagacaga300  
tttgcgcatc cactcaagca gaatgtggcc atgaatatc agccctgca tacatacaaa360  
gatgtacgca tgattcccc caccaagcac acacacagtc acacacgcac acacacacac420  
atgcacacac gcgcgtgcac acacggacac atgcacacac acacgcacac gtaaacacat480  
gcacacatgc acacacgtgc acacatgcac acacggacac actt 524

<210> 15  
<211> 345  
<212> DNA  
<213> homo sapiens

<400> 15

aaactttctt tctacaaaa atcaaaagct tagctgatag atcatgaaaa tagattatga 60  
acagtgaat tcttgagaag gctgaaagt cggggaacca aagcagggga gattagcctt120  
agtccggagg agggagaagc agatggaagt cagcagcctg ccttgttttt acgtgtaata180  
tttaaatgtg caaattgtat tacaggaggg cctactttct gtttttatca agagtttttc240  
ttttgttcaa agacactggt tatgggaata ttttgaaagg gtaagaaacg ctggtataaa300  
aaggtgttgc agattaatct tgaaggctct tacggaacca gtccc 345

<210> 16  
<211> 1060  
<212> DNA  
<213> homo sapiens

<400> 16

ggcgggtccca ggcaggccca gaagctgggc agcctctgcc ggggtccggg aaaaggagct 60  
cctgctgcca ctgctcttcc ggagcctgca gcatggggcc cctgccgcgc accgtggagc 120  
tcttctatga cgtgctgtcc ccctactcct ggctgggctt cgagatcctg tgccgggtatc 180  
agaatatctg gaacatcaac ctgcagttgc ggcccagcct cataacaggg atcatgaaag 240  
acagtggaaa caagcctcca ggtctgcttc ccgcgaaagg actatacatg gcaaatgact 300  
taaagctcct gagacaccat ctccagattc ccctccactt cccaaggat ttcttgtctg 360  
tgatgcttga aaaaggaagt ttgtctgcca tgcgtttcct caccgctgtg aacttgagc 420  
atccagagat gctggagaaa gcgtcccggg agctgtggat gcgcgtctgg tcaaggaatg 480  
aagacatcac cgagccgcag agcatcctgg cggctgcaga gaaggctggt atgtctgcag 540  
aacaagccca gggacttctg gaaaagatcg caacgccaaa ggtgaagaac cagctcaagg 600  
agaccactga ggcagcctgc agatacggag cctttgggct gcccatcacc gtggcccatg 660  
tggatggcca aaccacatg ttatttggt ctgaccggat ggagctgctg gcgcacctgc 720  
tgggagagaa gtggatgggc cctatacctc cagccgtgaa tgccagactt taagattgcc 780  
cggagggaagc aaactcttgc tataaaaaaa gcaggccatc tgcttaaccc ttggctccac 840  
cataaggcac tgggactcgg atttctctat ctgatagagg tattttctgt ggccctggga 900  
gctgtctgtc tttcccctac ccccaaggat gccaggaaga cgtccaccat tagccatgtg 960  
gcaaccttta cttctatgcc tcacaagtgc ctttcagaga gccccaattc tgctttccca1020  
caaaataaac ctaatgccat caggcaaaaa aaaaaaaaaa 1060

<210> 17  
<211> 1721  
<212> DNA

00/227" 56E2960

<213> homo sapiens

<400> 17

ctctctctctct ttctgtctct tctctgctcc ctctctttct ctctctccctc tgccttccca 60  
gtgcataaag tctctgtcgc tcccggaaact tgttggaact gcctattttt tggctttccc 120  
ccgcgttctc taaactaact atttaaagggt ctgcggtcgc aaatggtttg actaaacgta 180  
ggatgggact taagttgaac ggcagatata tttcactgat cctcgcggtg caaatagcgt 240  
atctgggtgca ggccgtgaga gcagcgggca agtgcgatgc ggtcttcaag ggcttttcgg 300  
actgtttgct caagctgggc gacacatggc caactacccg caggcctgga cgacaagacg 360  
aacatcaaga ccgtgtgcac atactgggag gatttccaca gctgcacggt cacagccctt 420  
acggattgcc aggaaggggc gaaagatatg tgggataaac tgagaaaaga atccaaaaac 480  
ctcaacatcc aaggcagctt attcgaactc tgcggcagcg gcaacggggc ggccgggttc 540  
ctgctcccgg cggtcccggg gctcctgggt tctctctcgg cagcttttag gacctggctt 600  
tccttctgag cgtggggcca gctcccccg cgcgccacc cacactcact ccatgctccc 660  
ggaaatcgag aggaagatcc attagtctt tggggacgtt gtgattctct gtgatgctga 720  
aaacactcat ataggattgt gggaaatcct gattctctt tttatttcgt ttgatttctt 780  
gtgttttatt tgccaaatgt taccaatcag tgagcaagca agcacagcca aaatcggacc 840  
tcagcttttag tccgtcttca cacacaaata agaaaacggc aaaccacccc cattttttta 900  
ttttattatt attaatTTTT tttgttggca aaagaatctc aggaacggcc ctggggccacc 960  
tactatatta atcatgctag taacatgaaa aatgatgggc tctcctaata aggaaggcga1020  
ggagaggaga aggccagggg aatgaattca agagagatgt ccacggacga aacatacgg1080  
gaataattca cgctcacgtc gttcttcac agtatctgt tttgatcatt tccactgcac1140  
atttctctc aagaaaagcg aaaggacaga ctgttggctt tgtgtttgga ggataggagg1200  
gagagaggga aggggctgag gaaatctctg gggtaagagt aaaggcttcc agaagacatg1260  
ctgctatggt cactgagggg ttagctttat ctgctgtgtg tgatgcaccc gtccaagtcc1320  
actgccttta ttttccctcc tccctcttgt tttagctgtt acacacacag taatacctga1380  
atatccaacg gtatagatca caaggggggg atgttaaagt ttaatctaaa atatagctaa1440  
aaaaagattt tgacataaaa gagccttgat tttaaaaaaa aaagagagag agatgtaatt1500  
taaaaagttt attataaatt aaattcagca aaaaaagatt tgctacaaag tatagagaag1560  
tataaaataa aggttattgt ttgaaaaaaa agtgtcgttt gtttctacc ccaacctgct1620  
ttcttgaccc agttctcagg gaacctgaag gacacagga tgccggtgat aagctcacct1680  
cttcaggaag ccgcttcaag cagacctgcc accttcaagc a 1721

<210> 18

<211> 2367

<212> DNA

<213> homo sapiens

<400> 18

acctgtggt cccgggtttc tgcagagtct acttcagaag cggaggcact gggagtcggg 60  
tttgggattg ccaggctgtg gttgtgagtc tgagcttgtg agcggctgtg gcgccccaac 120  
tcttcgccag catatcatcc cggcaggcga taaactacat tcagttgagt ctgcaagact 180  
gggaggaaact ggggtgataa gaaatctatt cactgtcaag gtttattgaa gtcaaaatgt 240  
ccaaaaaaat cagtggcggg tctgtggtag agatgcaagg agatgaaatg acacgaatca 300  
tttgggaatt gattaaagag aaactcattt ttccctacgt ggaattggat ctacatagct 360  
atgatttagg catagagaat cgtgatgcca ccaacgacca agtcaccaag gatgctgcag 420  
aagctataaa gaagcataat gttggcgtca aatgtgccac tatcactcct gatgagaaga 480  
gggttgagga gttcaagttg aaacaaatgt ggaaatcacc aaatggcacc atacgaata 540  
ttctgggtgg cacggtcttc agagaagcca ttatctgcaa aaatatcccc cggcttgtga 600  
gtggatgggt aaaacctatc atcataggtc gtcagtctta tggggatcaa tacagagcaa 660  
ctgattttgt tgttcctggg cctggaaaag tagagataac ctacacacca agtgacggaa 720  
ccaaaagggt gacatacctg gtacataact ttgaagaagg tgggtggtgt gccatgggga 780  
tgtataatca agataagtca attgaagatt ttgcacacag ttccttccaa atggctctgt 840  
ctaagggttg gcctttgtat ctgagcaca aaaacactat tctgaagaaa tatgatggg 900  
gttttaaaga catctttcag gagatatag aagaagcagta caagtcccag tttgaagctc 960  
aaaagatctg gtatgagcat aggtcatcg acgacatggt ggcccaagct atgaaatcag1020  
agggaggctt catctggggc tgtaaaaact atgatggtga cgtgcagtcg gactctgtgg1080  
cccaagggtg tggctctctc ggcatgatga ccagcgtgct ggtttgtcca gatggcaaga1140  
cagtagaagc agaggctgcc cacgggactg taaccctgca ctaccgcatg taccagaaaag1200  
gacaggagac gtccaccaat cccattgctt ccatttttgc ctggaccaga ggggttagccc1260  
acagagcaaa gcttgataac aataaagagc ttgccttctt tgcaaatgct ttggaagaag1320

```

tctctattga gacaattgag gctggcttca tgaccaagga cttggctgct tgcattaaag1380
gtttacccaa tgtgcaacgt tctgactact tgaatacatt tgagttcatg gataaacttg1440
gagaaaactt gaagatcaaa ctagctcagg ccaaacttta agttcatacc tgagctaaga1500
aggataattg tcttttggtg actaggtcta cagggtttaca ttttctgtg ttactactcaal560
ggataaaggc aaaatcaatt ttgtaatttg tttagaagcc agagtttata ttttctataal620
gtttacagcc tttttcttat atatacagtt attgccacct ttgtgaacat ggcaagggac1680
ttttttacaa tttttatttt attttctagt accagcctag gaattcgggt agtactcatt1740
tgtattcact gtcacttttt ctcatgttct aattataaat gaccaaatac aagattgctc1800
aaaagggtaa atgatagcca cagtattgct ccctaaaata tgcataaagt agaaattcac1860
tgccttcccc tctgtgccat gaccttgggc acaggggaagt tctgggtgca tagatatccc1920
gttttgtgag gtagagctgt gcattaaact tgcacatgac tggacgaag tatgagtga1980
actcaaatgt gttgaagata ctgcagtcac ttttgtaaag acctgctga atgtttccaa2040
tagactaaat actgtttagg ccgcaggaga gtttggaatc cggaataaat actacctgga2100
ggtttgtcct ctccattttt ctcttctcc tcttggcctg gcctgaatat tatactactc2160
taaatagcac atttcattcca agtgcaataa tgtaagctga atcttttttg gacttctgct2220
ggcctgtttt atttctttta tataaatgtg atttctcaga aattgatatt aaacactatc2280
ttatcttctc ctgaactgtt gatttttaatt aaaattaagt gctaattacc attaaaaaaa2340
aaaaaaaaa aaaaaaaaaa aaaaaaa
2367

```

<210> 19  
 <211> 1321  
 <212> DNA  
 <213> homo sapiens

<400> 19

```

cctggaaaca agatccaaac ccaagtgacc ccgccggaaa gtgaccagct cagggtttaa 60
aattccaaca aaccgacgtg aacaaataga ccgaccaacc aaatatacaa tccgtcaaaa 120
tacattcact tccactacga aaccccaaca aagggtgtga atgcccgccc aggagagacg 180
gttttggtt catcaagtgt gtggatcgtg atgttcgtat gttcttccac ttcagtga 240
ttctggatgg gaaccagtc catattgcag atgaagtga gtttactgtg gttcctgata 300
tgctctctgc tcaaagaaat catgctatta ggattaaaaa acttcccaag ggcacgggtt 360
catttcattc ccattcagat caccgttttc tgggcacggg agaaaaagaa gccacttttt 420
ccaatcctaa aaccactagc ccaaataaag gcaaagagaa ggaggctgag gatggcatta 480
ttgcttatga tgactgtggg gtgaaactga ctattgcttt tcaagccaag gatgtggaag 540
gatctacttc tcctcaaata ggagataagg ttgaatttag tattagtga aaacagaggc 600
ctggacagca ggttgcaact tgtgtgcgac ttttaggtcg taattctaac tccaagaggc 660
tcttgggtta tgtggcaact ctgaaggata attttggatt tattgaaaca gccaatcatg 720
ataaggaaat ctttttccat tacagttagt ttgtccaaag gcaaaggcaa caaagtcagt gcagaaaaag 840
gggacatggg cgagtatagc ttgtccaaag gcaaaggcaa caaagtcagt gcagaaaaag 840
tgaacaaaac acactcagtg aatggcatta ctgaggaagc tgatccacc atttactctg 900
gcaaagtaat tcgccccctg aggagtgttg atccaacaca gactgagtac caaggaatga 960
ttgagattgt ggaggagggc gatatgaaag gtgaggtcta tccatttggc atcgttggga1020
tggccaacaa aggggattgc ctgcagaaag gggagagcgt caagttccaa ttgtgtgtcc1080
tggggcaaaa tgcacaaact atggcttaca acatcacacc cctgcgcagg gccacagtgg1140
aatgtgtgaa agatcagttt ggcttcatta actatgaagt aggagatagc aagaagctct1200
ttttccatgt gaaagaagtt caggatggca ttgagctaca ggcaggagat gagggtggagt1260
tctcagtgat tcctaagagt tcaggcggac tggcaggggtc aggcgcctgt agatgttttg1320
1321

```

<210> 20  
 <211> 384  
 <212> DNA  
 <213> homo sapiens

<400> 20

```

ggtcgaatcc aaatcactca ttgtgaaagc tgagctcaca gccgaataag ccaccatgag 60
gctgtcagtg tgtctcctga tgggtctcgt ggccctttgc tgctaccagg cccatgctct120
tgtctgcccc gctgttgctt ctgagatcac agtcttctta ttcttaagt acgctgcgg180
aaacctccaa gttgccaac ttaatccacc tccagaagct cttgcagcca agttggaagt240
gaagcactgc accgatcaga tatcttttaa gaaacggctt ctcatgtgaa aaagtccctgg300
gtgggaatag tgaaaaaat tgggtgtgtg acatgtaaaa atgctcaacc tgggtttcca360

```

<400> 21

```
<210> 22
<211> 2621
<212> DNA
<213> homo sapiens
```

<400> 22

# THE FUTURE OF THE FUTURE

```

gatcgtgcta ctactgcctg ggtggcaagg gtgagactcc atctcaaaaa agaaacaaaa2400
aaacccaaaa agttttcttt actggttggtt aaaaaaaaaa gccagaccat agtttgactg2460
gtggcatgga atttgtgtat caaataaatg ctttgctta ttgacaaac aaaaagtgtc2520
cactattggt gaccgaggtg gggccgtttt tttgaaattg ggggggaaat ttgcccggtg2580
gtgggagggg ctttgtgggg ggggaaaaat tgcccccttg g 2621

```

<210> 23  
 <211> 2019  
 <212> DNA  
 <213> homo sapiens

<400> 23

```

ctgtatccta atttcttggt gaatgaactc attcttaaac agaagcaaag atttgaggaa 60
aagaggttca aattggacca ctacgtgagt agcaccaatg gccacaggtg gcagatattt 120
caagattggt tgggaactga ccaagataac cttgatttgg ccaatgtcaa tcttatgttg 180
gagttactag tgcagaagaa gaaacaactg gaagcagaat cacatgcagc ccaactacag 240
attcctatgg aattcctcaa ggttgcaaga agaaataaga gagagcaact ggaacagatc 300
cagaaggagc taagtgtttt ggaagaggat attaagagag tggaagaaat gagtggctta 360
tactctcctg tcagtgagga tagcacagtg cctcaatttg aagctccttc tccatcacac 420
agtagtatta ttgattccac agaatacagc caacctccag gtttcagtgg cagttctcag 480
acaaagaaac agccttggtg taatagcacg ttagcatcaa gacgaaaacg acttactgct 540
cattttgaag acttgagca gtgttacttt tctacaagga tgtctcgtat ctcatgatgac 600
agtcgaactg caagccagtt ggatgaattt caggaatgct tgtccaagt tactcgatat 660
aattcagtac gacctttagc cacattgtca tatgctagt atctctataa tggttccagt 720
atagtctcta gtattgaatt tgaccgggat tgtgactatt ttgcgattgc tggagttaca 780
aagaagatta aagtctatga atatgacact gtcacccagg atgcagtggg tattcattac 840
cctgagaatg aaatgacctg caattcgaaa atcagctgta tcagttggag tagttaccat 900
aagaacctgt tagctagcag tgattatgaa ggcactgtta ttttatggga tggattcaca 960
ggacagaggt caaagggtcta tcaggagcat gagaagaggt gttggagtgt tgactttaat1020
ttgatggatc ctaaaactctt ggcttcaggt tctgatgatg caaaagtga gctgtggtct1080
accaatctag acaactcagt ggcaagcatt gagggcaaagg ctaatgtgtg ctgtgttaaa1140
ttcagccctt cttccagata ccatttggct ttcggctgtg cagatcactg tgtccactac1200
tatgatcttc gtaacactaa acagccaatc atgggtattca aaggacaccg taaagcagtc1260
tcttatgcaa agtttgtgag tgggtaggaa attgtctctg cctcaacaga cagtcagcta1320
aaactgtgga atgtagggaa accatactgc ctacgttcct tcaaggggtca tatcaatgaa1380
aaaaactttg taggcctggc ttccaatgga gattatatag cttgtggaag tgaaaataac1440
tctctctacc tgtactataa aggactttct aagactttgc taacttttaa gtttgataca1500
gtcaaaaagt ttctcgacaa agaccgaaaa gaagatgata caaatgaatt tgttagtgct1560
gtgtgctgga gggcactacc agatggggag tccaatgtgc tgattgctgc taacagtcag1620
ggtacaatta aggtgctaga attggatgga aggggttaact caagtcaaat tgtacttgat1680
cctgctgaaa tacatctgca gctgacaatg agagaagaaa cagaaaatgt catgtgatgt1740
ctctcccaaa agtcatcatg ggttttggat ttgttttgaa ttttttttct ttttttctt1800
ttccctcctt tatgaccttt gggacattgg gaataccag ccaactctcc accatcaatg1860
taactccatg gacattgctg ctcttggtgg tgttatctaa tttttgtgat agggaaacaa1920
attcttttga ataaaaataa ataacaaaac aataaaagtt tattgagcca caaaaaaaa1980
aaaaaaaaaa aaaaaagaaa agaagggagg agggaaagg 2019

```

<210> 24  
 <211> 1866  
 <212> DNA  
 <213> homo sapiens

<400> 24

```

gtggttgctg tgacaggcac tttttgaagt gctttatcat ggattaactc ttaatcctca 60
gtaccgatat aaagtaggac ataaccctat ttcacatgca ctacactgag acttgctcc 120
tctcccccca cattgaagat gttctttttt cataactata tactattcca ttgcatgaat 180
attctgtaat ttattttaat ccctatggat tgataattag gttcattata gatagaagtg 240
taattaacat tctgtacat gtattttgct acttggtggt gtattttctgt aggatgaata 300
actagaaatt tattggatca ggtttcacat ttgcagtttt gaaaactact accaaaaaga 360
tttcaccaat ttacaactcc atcattagta agaatgcctg tttgcctata gtctgccaac 420
cctgaatcct taaaaatttt tgccaatctg gtaggcaaaa tttcttttct tcttttgaat 480

```

```

attaatgagg aggaacatct tttcatgttt cttggccatt tgcatttcct attatgaatt 540
gcttttgccc attttccttt ttttaattat gaaagtctaa tgactacctt ctcattgtat 600
aaaaaacaca gttctttgaa tagagagacc cttttctcca atgctaccaa tcacattcca 660
cttaccacag tttaacatac atcctctagt cacctttccg tacgaatata catacacata 720
aaaacacttt ttacataaat aggatctcat attctgtagc tttttaaaat tttggtctca 780
aaaaaagata acaggtcttt aaatttcttt aatggttgaa tatgattaaa tactatgaaa 840
atgccattat ttattccctt aatttttttc ctctcgctat tacattgcca aagtaaacad 900
cctattcaga tgtctttgtg catgtgtgtg aatatttctt tagtctggag tccagtaagg 960
tggatttttg gatcaaaggg tttgttctct gtccaccttc agtcttccca aaggccttca 1020
taactgtatt ttcaccaagt gtatggagaa tgttcatttc cccatataac catacctaca 1080
cttgatagtt tttatctgtt gggcgaaaaa gaaccttttc ttattttgca tttccctgat 1140
tataaaaaaa aatggtgaga ttgggggttat tttcatgttt attggccatt tatagtttac 1200
tgtggattgt ttgtatccct tacctgcttt ctattgggtt atgtgtggat atattgtttt 1260
tatttgttca gcatctcctt ccccatcttc tggtaacaca acctttattt atttgtgggg 1320
aacctattcc ctgtggctta ggtgagcatg tgaccaggcc tggcctcctg agtcccacag 1380
cttcctagcc acagtgataa aagaatgggt atataactta agccaggcta aggaaagccc 1440
ttaacagaac ttctgctgga actactggaa agaaggcttt atggagatcc caggaaacca 1500
ggaccatgta agcctgaatt tgtgccatgt ggagagagtc tgtctgagga gaaactcgga 1560
tgctagcaga aatggaaaga gaactaagtt ctgatgtcat ttttctggag gccctagatc 1620
cagctgtgcc taaagcctgc cctacctcgc gaactttaaag ttttgtgagc caataaagtc 1680
cctttcttgt ttaagataat tgaattgagt ttctgttctg attaatatag gttatttgtat 1740
ttttcttatt gatttgtaga aaacctttgt aattttaaat tctagacttt atgcactata 1800
taagttaata aaattagcat ggccttccat gaaaaaaaaa aaaaaaaaaa aaaaaaaaal 1860
aaaaaa

```

<210> 25  
 <211> 1189  
 <212> DNA  
 <213> homo sapiens

<400> 25

```

ctagcaagca ggtaaacgag ctttgtacaa acacacacag accaacacat ccgggggatgg 60
ctgtgtgttg ctagagcaga ggctgattaa aactcagtg tgttggctct ctgtgccact 120
cctggaaaat aatgaattgg gtaaggaaac gttaataaga aaatgtgcct tgctaactgt 180
gcacattaca acaaagagct ggcagctcct gaaggaaaag ggcttgtgcc gctgccgttc 240
aaacttgtca gtcaactcat gccagcagcc tcagcgtctg cctccccagc acacctcat 300
tacatgtgtc tgtctggcct gatctgtgca tctgctcgga gacgtcctg acaagtcggg 360
aatttctcta tttctccact ggtgcaaaga gcggtttct ccctgcttct cttctgtcac 420
ccccgctcct ctccccagg aggtccttg atttatggta gctttggact tgcttccccg 480
tctgactgtc cttgacttct agaattggaag aagctgagct ggtgaaggga agactccagg 540
ccatcacaga taaaagaaaa atacaggaaag aaatctcaca gaagcgtctg aaaatagagg 600
aagacaaact aaagcaccag catttgaaga aaaaggcctt gagggagaaa tggcttctag 660
atggaatcag cagcggaaaa gaacaggaag agatgaagaa gcaaaatcaa caagaccagc 720
accagatcca ggttctagaa caaagtatcc tcaggcttga gaaagagatc caagatcttg 780
aaaaagctga actgcaaact tcaacgaagg aagaggccat tttaaagaaa ctaaagtcaa 840
ttgagcggac aacagaagac attataagat ctgtgaaagt ggaaagagaa gaaagagcag 900
aagagtcaat tgaggacatc tatgctaata tccctgacct tccaaagtcc tacatacctt 960
ctaggttaag gaaggagata aatgaggaaa aagaagatga tgaacaaaat aggaaagctt 1020
tatatgccat ggaaattaaa gttgaaaaag acttgaggac tggagaaagt acagttctgt 1080
cttcaatacc tctgccatca gatgacttta aaaggtccag gagtaaaagt ttatgatgat 1140
gggcaaaagt ccagtgtatt cagtaaagtg ctaatcacia gttggaggt 1189

```

<210> 26  
 <211> 1418  
 <212> DNA  
 <213> homo sapiens

<400> 26

```

gagctcgcag ctccgcgggc gcttgggtccc agcgcccgcg gcgcccgcgtc cccggcccaa 60
ccatggcgctc ctccgcgggc ggctgcgtgg tgatcgttgg cagtggagtc attgggcgaa 120
gtggggccatg ctgtttgccg gtggaggctt ccagggtgaaa ctctatgaca ttgagcaaca 180

```





gatgagtgtt acatagattc tttgaattta gtataaaagt actgagaatt aagtttgtac 780  
 ttccataagc ttggatttta aacactgata gtatctcatg agtaatgtgt gttttgggag 840  
 agggagggat gctgattgat atttcacatt gtatgaaata ccatgtttga aactcatagc 900  
 aataatgcta tgctgtttgt atccctctca agttctgcat ttaaaatata ttttttcttt 960  
 ataggaattg atgtatacca tgaagtcatt gtcagttgta gtagctctga tgttgaatga1020  
 gatatcatgt ttttagcattc cattttactg actagggtag aagaacactt ttcttggcta1080  
 catttggagg ataccagggt agtcttgggt gttccttctc tggggaagca aacatttcacl140  
 tagtctcttt ttttcatcct ttaaattgta aattaaggat tactcaagct caccattatt1200  
 caagattggg actcgtctcc cagtcgacac tctgccctgc ctgtcattgc tgcaaagagc1260  
 tgctgctttg ccaacctaaag caaagaaaat acggcttctc ttgcattatt ttcccttttg1320  
 gttggtttgt tttctagaag tacgttcaga tgctttgggg aatgcaatgt atgatttgc1380  
 agctctctca ccacttaact cactgtgagg ataaatagc atgctttttg taattaactg1440  
 gtgctttgaa aatctttttt aaggggagaaa aatctcaacc aaagttatgc tcatccagac1500  
 aagctgacct ttgagttaat ttcagcacia ctcattcttc agtgccctcat gactgaaaac1560  
 aaaaaacaaa aaaacgaaaag catcttcaca atgaagcttc cagatagcac cgttttgcta1620  
 aaagatacat tctcattgtt ttccaacagt gatggcttcc acataagggt aaacaaacta1680  
 ggtgctttga aataatttat tacagtttac tctatcgcat ttctgtaaca tgaaatgcat1740  
 gcccttcttc aggggaagac tgtggtcaag ttaaaaaaaa aaaacaatat taaacaacat1800  
 gaaactgcag tctgtttttg aaaatgagaa tgtcctaagt gattcagaag agaggaggga1860  
 agttgtgcac tctgaaaatg catgaaaaac aaaggcaaaa actagtggga aatgtgtaga1920  
 actgttaact gagacggctt cgagctcttc ttctggaatc tgttaaattt cacaaagtc1980  
 tgagggtaaa tggagaaaaat atttctggga ttacaatgaa tgtaagccca aattgtggaa2040  
 ttgccagtaa cctggatggg gaaaagcatt tcccatagca ctccatgtaa tatgagtgt2100  
 ctgtgagatg ttcatcagtg ttttatagaa atgggtgttg tgggaaacca agtttgcacc2160  
 tggaaactta caatgcactt tagcgcagta agggcttggc atccggtagt gaaaaactgt2220  
 ctaaccagc attgcccaaa ctattttgac accaggacct ttttctcctt tgggatactt2280  
 atgaacctct cactaatgtc ctgtggagaa cattttggga aacactatgt tagatagttc2340  
 ttaaggaga caaaacggta atgaacagat agcactgggg cagaatatgc atgcattttg2400  
 taacgtccag tgtggcggtg aatagatgtg tatttccctc cctgcagaaa ataagcacag2460  
 aaaattataa tgtaggtgat cggagctctt tcctttgata gagagaacag ccccaactgat2520  
 cctggctttt tcaactgaac tatcagaata catggatgaa ttggggtaaa taagggttta2580  
 attcagatct agaagaaagt attgtacgtt tgaatgcaga tttttatcca cagatagttg2640  
 tagtgtttag acatgacagg acctatcgtt gaggtttcta agacttacta tgggctgtaa2700  
 acctgttttt taaaaactatt ttagaaacct gagacttgcc gtctggcatt ttagttta2760  
 acaaactaat gattgcattt gaaagagatt cttgacctta tttctaaacg tctagagctc2820  
 tgaaatgtct tgatggaagg tattaacta tttgcctgtt gtacaaagaa atgttaagac2880  
 tctgaaaaag aattactata aggtactgtg aaataactgc gattttgtga gcaaaacata2940  
 cttggaaatg ctgattgatt tttatgcttg ttagtgtatt gcaagaaaca cagaaaatgt3000  
 agttttgttt taataaacca aaaattgaac ataaaaacc 3039

<210> 29

<211> 1448

<212> DNA

<213> homo sapiens

<400> 29

taccaatctg aaggggggaag cggcgccgcc atcgccctccc ggcgctccct ccccgactcc 60  
 taagtccttc ggccgcccacc atgtccgcct cggctgtctt cattctggac gtttaaggga 120  
 agccattgat cagccgcaac tacaaggcg atgtggccat gagcaagatt gagcacttca 180  
 tgcctttgct ggtacacggg gagggaggaag gcgccttggc cccgctgctg agccacggcc 240  
 aggtccactt cctatggatc aaacacagca acctctactt ggtggccacc acatcgaaga 300  
 atgccaatgc ctccctgggt tactccttcc tgtataagac aatagaggta ttctgcgaat 360  
 acttcaagga gctggaggag gagagcatcc gggacaactt tgtcatcgtc tacgagttgc 420  
 tggacgagct catggacttt ggcttcccgc agaccaccga cagcaagatc ctgcaggagt 480  
 acatcactca gcagagcaac aagctggaga cgggcaagtc acgggtgcca cccactgtca 540  
 ccaacgctgt gtcttgccgc tccgagggt tcaagtataa gaagaacgag gtcttcattg 600  
 tctgtcggtac catcaagctc aaggtgtttc tgtcaggaat gccagagctg cggctggggc 720  
 tcaatgaccg cgtgctcttc gagctcactg gccgcagcaa gaacaaatca gtagagctgg 780  
 aggatgtaaa attccaccag tgcgtgcggc tctctcgctt tgacaacgac cgcaccatct 840  
 ccttcatccc gctgatgggt gactttgagc tcatgtcata ccgcctcagc acccaggtca 900  
 agccactgat ctggattgag tctgtcattg agaagttctc ccacagccgc gtggagatca 960

```

tggtcaaggc caaggggcag ttttaagaaac agtcagtggc caacgggtgtg gagatatctg1020
tgcctgtacc cagcgatgcc gactcccccac gattcaagac cagtgtgggc agcgccaagt1080
atgtgccgga gagaaacgtc gtgatttgga gtattaagtc tttcccgggg ggcaaggagt1140
acttgatgcg agcccacttt ggccctcccca gtgtggaaaa ggaagagggtg gagggccggc1200
ccccatcgg ggtcaagttt gagatccccc acttcaccgt ctctgggatc cagggtccgat1260
acatgaagat cattgagaaa agtgggtacc agggccctgc cctggggttt cgctacattc1320
accagagtg ggcgattacc aactttcgtt accagctagg aaggggagaa gagatggggg1380
ggttttaaca cgggggttgc tttacagccc cggatgcaga tttttagaag ggagggcagg1440
tgcgggtt 1448

```

<210> 30  
 <211> 1394  
 <212> DNA  
 <213> homo sapiens

<400> 30

```

atgaatacaa ggctgcaagt ggaacatcct gttactgaga tgatcacagg aactgacttg 60
gtggagtggc agcttagaat tgcagcagga gagaagattc ctttgagcca ggaagaaata 120
actctgcagg gccatgcctt cgaagctaga atatatgcag aagatcctag caataacttc 180
atgcctgtgg caggccatt agtgcacctc tctactcctc gagcagacc ttccaccagg 240
attgaaactg gagtacggca aggagacgaa gtttcctgtc attatgacct catgattgcg 300
aagtgggtcg tgtgggcagc agatcgccag gcggcattga caaaactgag gtacagcctt 360
cgtcagtaca atattgttg actgcccacc aacattgact tcttactcaa cctgtctggc 420
caccagagt ttgaagctgg gaacgtgcac actgatttca tccctcaaca ccacaaacag 480
ttgttgctca gtcggaaggc tgcagccaaa gagtctttat gccaggcagc cctgggtctc 540
atcctcaagg agaaagccat gaccgacact ttcactcttc aggcacatga tcaattctct 600
ccattttcgt ctagcagtgg aagaagactg aatatctcgt ataccagaaa catgactctt 660
aaagatggta aaaacaatgt agccatagct gtaacgtata accatgatgg gtcttatagc 720
atgcagattg aagataaaaac tttccaagtc cttggtaatc tttacagcga gggagactgc 780
acttacctga aatgttctgt taatggagtt gctagtaaag cgaagtgatt atcctggaaa 840
acactattta cctattttcc aaggaaggaa gtattgagat tgacattcca gtcccaaat 900
acttatcttc tgtgagctca caagaaactc agggcggccc cttagctcct atgactggaa 960
ccattgaaaa ggtgtttgtc aaagctggag acaaagtgaa agcgggagat tccctcatgg1020
ttatgatcgc catgaagatg gagcatacca taaagtctcc aaaggatggc acagtaaaga1080
aagtgttcta cagagaaggt gctcaggcca acagacacac tcctttagtc gagtttgagg1140
aggaagaatc agacaaaagg gaatcggaat aaactccagc aaggaaatgg ccagttaagt1200
agtgtcttct ctctccacca aaaagaggaa gtgcctccag cttttctggg ggtctcataa1260
agagcagttt tactaaatga ttgtatgctt atgctgaaca cttttcatat tggagaatca1320
tgcatttggg tcactaatta tctcaaaata tttcatacta ataaagttag attatttttt1380
attggaagcc aaaa 1394

```

<210> 31  
 <211> 734  
 <212> DNA  
 <213> homo sapiens

<400> 31

```

gccgacaaga tgttcttgcg gcctcttccg gctgcggggc gagtagtctg cgcagctctg 60
gccgtgagac gtttcgggag ccggagtctc tccaccgcag acatgacgaa gggccttggt120
ttaggaatct attccaaaga aaaagaagat gatgtgccac agttcacaaag tgcaggagag180
aattttgata aattgttagc tggaaagctg agagagactt tgaacatatc tggaccacct240
ctgaaggcag ggaagactcg aaccttttat ggtctgcac aggacttccc cagcgtgggt300
ctagttggcc tcggcaaaaaa ggcagctgga atcgacgaac aggaaaaactg gcatgaaggc360
aaagaaaaa tcaagactgc tgttgacgag ggggtgcaggc agattcaaga cctggagctc420
tcgtctgtgg aggtggatcc ctgtggagac gctcaggctg ctgcggaggg agcgggtgct480
ggtctctatg aatacgaatg cctaaagcaa aaaaagaaga tggctgtgtc ggcaaaagctc540
tatggaagtg gggatcagga ggcctggcag aaaggagctc tgtttgcttc tgggcaagaa600
cttgggcacg ccaatttgat gggagacgcc agccaattga gattgacgcc aaccagattt660
tgccgaaatt atttgagaag attttcaaaa ttggtagtta gttaaaaccg aggtcctttt720
cagaccccaa tttt 734

```

<210> 32  
 <211> 692  
 <212> DNA  
 <213> homo sapiens

<400> 32

```
tgcagcgcgt gcgtgctgcg ctactgagca gcgccatgga ggactctgaa gcaactgggct 60
tcgaacacat gggcctcgat ccccggtcc ttcaggctgt caccgatctg ggctggctcg120
gacctacgct gatccaggag aaggccatcc cactggccct agaaggggaag gacctcctgg180
ctcgggccccg cacgggctcc gggaagacgg ccgcttatgc tattccgatg ctgcagctgt240
tgctccatag gaaggcgaca ggtccggtgg tagaacaggc agtgagaggc cttgttcttg300
ttcctaccaa ggagctggca cggcaagcac agtccatgat tcagcagctg gctacctact360
gtgctcggga tgtccgagtg gccaatgtct cagctgctga agactcagtc tctcagagag420
ctgtgctgat ggagaagcca gatgtggtag tagggacccc atctcgcata ttaagccact480
tgcagcaaga cagcctgaaa cttcgtgact ccctggagct tttggtggtg gacgaagctg540
accttctttt ttcccttttg ctttgaagaa gagctcaaga agtcttcctc tggtcacttt600
gccccggat tttaacaagg cttttctcat gtcagctact tttaacgagg acgtacaagc660
actcaaggag ctgatattac ataagccggt at                                     692
```

<210> 33  
 <211> 517  
 <212> DNA  
 <213> homo sapiens

<400> 33

```
ctgccacgca cgactgaaca cagacagcag ccgcctcgcc atgaagctgc tgatggctct 60
catgctggcg gccctcctcc tgcactgcta tgcagattct ggctgcaaac tcctggaggga120
catggttgaa aagaccatca attccgacat atctatacct gaatacaaag agcttcttca180
agagttcata gacagtgatg ccgctgcaga ggctatgggg aaattcaagc agtgtttctc240
caaccagtca catagaactc tgaaaaactt tggactgatg atgcatacag tgtacgacag300
catttggtgt aatatgaaga gtaattaact ttacccaagg cgtttggtc agagggctac360
agactatggc cagaactcat ctgttgattg ctagaaacca cttttcttcc ttgtgttgct420
tttttatgtg gaaactgcta gacaactgtt gaaacctcaa attcatttcc atttcaataa480
actaactgca aatcacaaaa aaaaaaaaaa gtcgacg                                     517
```

<210> 34  
 <211> 322  
 <212> DNA  
 <213> homo sapiens

<400> 34

```
tcaagctgtg ggtgagaagc tctctagcag ggactctgac cttatggagg atcgctgttt 60
ccccattttt tccttttcac ccaaaaaagt cctgcttctg tcacccttca aacagcctgt120
gagcctaaat ttttgtggcc atgggacaga caaggacccc gtcttcagct gaactaaggga180
aaagtctctg gacatctttg gccatcaaac tccaaccag tcaccaacc agagcctctg240
aggaatggc cttcttgcg gggaaccctt tacaatgggc ctcttgactg atgtttcccc300
aaaacagtgc ccctgtcatc ag                                     322
```

<210> 35  
 <211> 1559  
 <212> DNA  
 <213> homo sapiens

<400> 35

```
gcacgagttg agagtgagtg tgtgtgtgtg cgtgtgcacg tgcacacatg tgcacggttg 60
tatgtatggg aaataaactt ataaatgggg acgtatttga gaaggaaata catagacctt 120
caactttgag caaatagcag tgatgtttta ggaactgaaa tgtcacactt aaagtcttca 180
gccagctac ttccctatct ttggcggggg gaagaggggc tgattagaac tgttctggtt 240
gtgtttggcg ggaggggaat aatttttgtt cagtccttct tagtgaccaa actttaattt 300
```

002221 5632960

```

ttaagaataa tatattgact tactgaactg aagcattctg agttgaaagg agctccagag 360
gagtggagtt ctgtgttgct cacatgttaa aagcttgctc accttcagag cagagggaat 420
acctatcttc agatatccgc ccatcttcat ctcttcatta tagtcaaaca gtgtgacttg 480
agagtgttgc tctgggtgtc gtattctggc ttatgaagat tatttgaaaa agaactctta 540
ctacattgaa atgcagactt ttaaaaattt aaatattgga ttaggcagtc aaaaaaccaa 600
acaagcataa aaggtcaata agttgtaatc ttaaaagtaa aggtggaaaa ctcattataa 660
atggaagaaa agttttgatt tccttttttg tttgatgggc agtatgccat attataccca 720
aagttctttt aaaaaatatt tccatcaacc atttttattt aaaataaaca tttgagggaa 780
gttaccaagg cagctttttt cctcaaaagt aacctgttcc tctttggaat agcacatttt 840
aggggcatgg ttaatacctg agattttttac tcagtaaata ctgatggtta ctgtgtgtaa 900
aatactctta agtaggattg aaggcctctg tgggggaata aaatattacc aaagtctata 960
aaaataaatt ttacatgttc tcttttatga cagagagcag cactggttct gttattttta1020
aaatgaataa ttgatttctt gatagggtgt taatatctt tccctcactg ctgattctta1080
gatagaaacc attctttata tttgatagac tgctttcaga aaacccttat caacaagtgt1140
acaatactta tctaaaacta tacatttaga atggagcagt ttaatactag atctcagaag1200
ttttgaaaaa tagcaaagaa gactggattt ggaaagcatg gtctacaatt ggttgtaa1260
ttctgaagct atgaagaata aatgtttcaa ctttgatta tgaaacccca tttatgattt1320
tttaataaca cttgaaataa aaatgattaa actaaatttt ggtccagtga cattactttg1380
cactgcataa tccattatac gttgtacgac tttttttttt ggtttgatt aataactgag1440
agttttgtgt gaagctacgg catatctaac cggagaattt cggatgcctt atacggtgat1500
tatattatat gggggcattt gtagtgcagc ggaagacgga atttatgcct ttgggaaac 1559

```

<210> 36  
 <211> 1072  
 <212> DNA  
 <213> homo sapiens

<400> 36

```

cacacgtgct gacggcgggg acattcacat ccataagaag aaatctcagc aagtgttcgc 60
gtcccccagt aaacacccca tggacagcaa gggggaggag tccaagatca gctaccccaa 120
catcttcttc atgattgaca gcttcgagga ggtgttcagc gacatgaccg tagggaagga 180
gagatgggtc gtgtggagct ggtggctagt gacaaaacca acacgttcca gggggtcac 240
tttcagggtc ccatccgcta cgaggcgctc aagaagggtg atgacaaccg ggtgagcgtg 300
gccgcccgca tggcacagaa gatgtcgttt ggcttctaca agtacagcaa catggagtgt 360
gtgcgcatga agggccccc cggcaagggc cagcccgaga tggcgggtcag ccgagtgtct 420
acaggtgaca cagccccctg tgggactgaa gaggactcca gccacagctt gcccatgcac 480
gagcgggtga cctccttcag cagaccccc accccagaac ggaacaaccg gcctgccttc 540
ttctcccat cctcaagag gaaggtgccc cggaaccgga tcgctgagat gaagaagtcg 600
cactcgcca acgacagcga ggagtctctc cgggaggacg acggtggagc cgatctgcac 660
aatgcaacca acctgcggtc tcggtccctg tcgggcacag gacggtccct ggtcgggtcc 720
tggctgaagc tgaacagagc agatggaaac ttcttctct atgcacactt aacctacgtc 780
acggttgccg tgcacggat tttaacagac atcctggaag ttcggcagaa gccatcctg 840
atgacctagc cgcgtgcgga gcctgcgcag agccccggcc gggcccagcc ctcgagtg 900
tgccaagtgc ctacctgtcc accgccaccg ggtctgcga tggcacgcca gtgttgagc 960
cgcagccagg cgaggccact cgactgccgg ggccggggcc gactgcacga acaccagccc1020
aaactgaagt gcctctgacg ggccctgctg gcgctgcttc cgccctgtgc cc 1072

```

<210> 37  
 <211> 454  
 <212> DNA  
 <213> homo sapiens

<400> 37

```

gtgctgcatg gagtgagtgg cggcatccac cgtgaggagg agaggagctc tgataccctc 60
aggacccgcc aggaggggca tcacggaggc ttctggacga cttggagctg tgcctgggg120
agaaaaccgc tcctgtgtgg gccctgagtg ctgaggagga agctgccatg cacttttccc180
tggcattttt cctgcatggg tcgtctgttt ttttgcaaat aacatgttgt catgaatttt240
tatgcatgag gcatatttca tcatgtctgt atgtgaaat ccccttcac ctttcaattg300
gttgggtggac aggagagaga ggtccaaggt gccctacatc gtgcgccagt gccgtgggag360
gagatcgagc gccgaggcac ggaggaggtg ggcattctacc gcatgtctgg ggtggccgca420
gacatccagg cactgaagge agccttcaac gtca 454

```

<210> 38  
 <211> 700  
 <212> DNA  
 <213> homo sapiens

<400> 38

```

cttgtcggag ccctaaccag gggatatctct gagcctgggt ggatccccgg agcgtcacat 60
cactttccga tcaacttcaaa gtgggttaaaa actaatatctt atatgacaga agaaaaagat120
gtcattccgt aaagtaaaca tcatcatctt ggtcctgggt gttgctctct tcttactggt180
tttgcaccaa aacttcctca gcttgagcag tttgttaagg aatgaggtta cagattcagg240
aattgtaggg cctcaaccta tagactttgt cccaaatgct ctccgacatg cagtagatgg300
gagacaagag gagattcctg tggatcatcg tgcatctgaa gacaggcttg gggggggccat360
tgcagctata aacagcattc agcacaacac tcgctccaat gtgattttct acattgttac420
tctcaacaat acagcagacc atctccgggt ctggctcaac agtgattccc tgaaaagcat480
cagatacaaa attgtcaatt ttgaccctaa acttttgtaa ggaaaagtaa aggaggatcc540
tgaccagggg gaatccatga aacctttaac ctttgcaagg ttctacttgc caattctggg600
ttcccagcgg caaaggaagg cccgtttaca tgggggtgat gatgttattt gtggcagggtg660
ggattttttg ccctttacat tacagcagtg aggcgggggc 700

```

<210> 39  
 <211> 914  
 <212> DNA  
 <213> homo sapiens

<400> 39

```

ccggcctgcg gtgggcagca gctcagggtt tccaaatcat tgcgtagttc cgaataccct 60
cggccacacc tggccttctc catgctcgga ataacttcct gcagcgacca acaggctaaa120
gaggggggaag ggatccagca ccggctcctc ctccggcaac cacggtggga gcggcgagg180
aaatggacat aaacccgggt gtgaaaagcc agggaaatgaa gccgcgggga gcgggaaatc240
tgggattcag ggcttcagag gacagggagt ttccagcaac atgagggaaa taagcaaaga300
gggcaatcgc ctcttggag gctctggaga caattatcgg gggcaagggt cgagctgggg360
cagtggagga ggtgacgctg ttggtggagt caatactgtg aactctgaga cgtctcctgg420
gatgtttaac tttgacactt tctggaagaa ttttaaattc aagctgggtt tcatcaactg480
ggatgccata aacaagaacc aggtcccgcc cccagcacc cgagccctcc tctacttcag540
ccgactctgg gaggatttca aacagaacac tcctttcctc aactggaaag caattattga600
gggtgcggac gcgtcatcac tgcagaaacg tgcaggcaga gccgagtcag aactacaatt660
acaaccagca tgcgtatccc actgcctatg gtgggaagta ctcagtcaag acccctgcaa720
aggggggggag tctcaccttc ttctcgggt tcccgggtgc aacctggggt tgcttgagct780
tgggtgaagt tttggtgaag caatttcttg caaccaacca ccgaaggccc cggaaaaagc840
actgggttcg tcaagggaag ctcttcccc ctttggggcc cccagccttg tggcaggccc900
ctggggcccg gttg 914

```

<210> 40  
 <211> 1669  
 <212> DNA  
 <213> homo sapiens

<400> 40

```

gagctgcagc agagcaggta acagctcttg cacctgtttc tcttgacact gacgtgcagc 60
tgctcctacc cacctctcct ggctgagcct tgcttgatac agcagccccg aggcaccact 120
tgcttccccga gtctcaccct cccaggcagc tctacactc aactgcttct ctaggaaagg 180
tctcacctcc agcctggagc agtcgggatt acagaaagcc ccctccttgg cttagggagc 240
gccatgacga ctgaaattgg ttggtggaag ctgactttcc tccggaaaaa gaaatccact 300
cccaaagtgc tgtatgagat ccctgacacc tatgccccaa cagagggaga tgcagaaccc 360
ccgaggcctg acgctggagg ccccaacagc gactttaaca cccgcctgga gaagattgtg 420
gacaagagca caaagggcaa gcacgtcaag gtctccaact caggacgctt caaggagaag 480
aagaaagtga gagccacgct ggcagagaac cctaacctct ttgatgatca cgaggaaagg 540
cggatcatcaa agtgaagggt tgaggagggg gctagcacct cttgggtccc tgccatcagc 600
cagatctgag acaggacctt gccacgctgg cctctttggc catagctgaa gctgtggggc 660

```

00227"552960

|            |             |             |            |            |            |      |
|------------|-------------|-------------|------------|------------|------------|------|
| cagttgatac | ctgctggcag  | gaaatggctg  | ttttttaggt | ttgtatttat | gtgccgccac | 720  |
| ttttgtaagg | cctgggagat  | cccaggggtcc | tccaccctcc | ccctgaccac | atacaaaggc | 780  |
| actctagttc | aagagtga    | agtctcacc   | aggaggaaca | gccctccttg | aagcaatggc | 840  |
| agggccagca | gggaggtggg  | catggcaggg  | aatggagaga | gtgagccaga | cagacttcac | 900  |
| ctccttactg | gacacaggg   | caagggcgag  | tttcaattgc | tgctcccttt | actttctcta | 960  |
| cctgtgacta | ctccctggac  | caatcctgag  | gagggcacat | tttcagaag  | ccacgtgata | 1020 |
| ggggctggtt | tctgtggagc  | cagaggcaga  | gacactgaac | ttgagctcac | ctcctaacac | 1080 |
| cggcagtaaa | cttcctggaa  | ctttgccctc  | aggtgcggag | gggacagagg | accctggcac | 1140 |
| tctgttaggg | tgctgtagaa  | gactagattg  | atggtagttt | ggcctgttag | ttcctgtttt | 1200 |
| ggccatgact | tttgcagatg  | gcaagtcaca  | caccctcaaa | gggaagctac | acgggccaaa | 1260 |
| tcgggggag  | gggtggggaa  | ttttctcttc  | tccctttcct | actataatag | tatttaagac | 1320 |
| atatcagctc | cagagatgag  | tcctggagcc  | ttgaattttg | tttaacaaaa | taattgtagg | 1380 |
| tttctctctg | taataacaac  | gctggaaagg  | cagagaacct | cttttatgct | catgtcttgc | 1440 |
| atttattgag | atgactgttt  | ctcatgcctt  | tatgttcctt | catgtaagta | aagtggacct | 1500 |
| ttgtgctcaa | aaaaaaaaatt | tcaagcttca  | ggaaggggtt | cccaaggtgt | gacaatgtag | 1560 |
| gaacctgggt | cactaatttt  | taccatcaaa  | cctagcctta | gtatggggat | ggggcaagca | 1620 |
| gaaggagcta | gttacacctc  | agtggtcagt  | tctctccagt | caacagaga  |            | 1669 |

<210> 41  
 <211> 355  
 <212> DNA  
 <213> homo sapiens

<400> 41

|            |            |            |            |            |            |     |
|------------|------------|------------|------------|------------|------------|-----|
| ccggcctccc | ctcgtcttga | ggctcgggg  | ccccagctcc | gcgtaaactg | cacgattttc | 60  |
| ccctctgctc | agctcccctc | tgccccctct | ttccaagaga | gacttccaga | tcccacattt | 120 |
| tcttgactga | ttttgaagct | gtctgtttgc | attctgattg | ggaacactgg | gatcattttc | 180 |
| atcatgccga | cagtgggtgt | aatggatgta | tccctttcca | tgaccgcacc | tgtgtctatt | 240 |
| gaggggtccg | aggaatacca | gcgtaagacc | tagcagccca | tggtttaacg | atgcttgttt | 300 |
| tgagcacatg | gccacaaatt | acaagcttga | atttacagca | cttgtgggtt | tttca      | 355 |

<210> 42  
 <211> 2628  
 <212> DNA  
 <213> homo sapiens

<400> 42

|             |            |             |            |            |             |      |
|-------------|------------|-------------|------------|------------|-------------|------|
| gggtgcgcct  | gcttttcgcc | tccttctcca  | gcgggagggg | cgcggaactc | cgcgggcgcg  | 60   |
| agtccgtcta  | gtgctgacgt | tggcagccga  | acccaaagta | gatcgaggcg | gcgggctgca  | 120  |
| cattcccgtt  | gttgcggttc | gtttccttcc  | tctttcactc | cgcgctcacg | gcggcgccca  | 180  |
| aagcggcggc  | gacggcgggc | cgagaacgac  | ccggcgccca | gttctcttcc | tcctgcgcac  | 240  |
| ctgccctgct  | cggtcagtca | gtcggcgggc  | ggcgcccggc | ttgtgctcag | acctcgcgct  | 300  |
| tgcggcgccc  | aggcccagcg | gccgtagcta  | gcgtctggcc | tgagaacctc | ggcgctccgg  | 360  |
| cggcgcgggc  | accacgagcc | gagcctcgca  | gcggctccag | aggaggcagg | cgagtgcgag  | 420  |
| agtccgaggg  | gtggccgggg | caggtgggtg  | cgccgcgaag | atggtcgcca | agcaaaggat  | 480  |
| ccgtatggcc  | aacgagaagc | acagcaagaa  | catcacccag | cgcggcaacg | tcgcccaagc  | 540  |
| ctcgagaaat  | gccccgaag  | agaaggcgct  | tgtaggacct | tggttattgg | ctctcttcat  | 600  |
| ttttgttgct  | tgtggttctg | caattttcca  | gattattcaa | agtatcagga | tgggcatgtg  | 660  |
| aagtgactga  | ccttaagatg | tttccattct  | cctgtgaatt | ttaaactgaa | ctcattcctg  | 720  |
| atgtttgata  | ccctggttga | aaacaattca  | gtaaagcatc | ctgcctcaga | atgactttcc  | 780  |
| tatcatgctt  | catgtgtcat | tccaagggtt  | cttcatgagt | cattccaagt | tttctagtcc  | 840  |
| ataccacagt  | gccttgcaaa | aaacaccaca  | tgaataaagc | aataaaaatt | gattgtttaag | 900  |
| atacagtagt  | ggaccctact | tattcagtc   | attaagagta | agttttttta | tgtggttatt  | 960  |
| aaaacagtat  | gaacaattag | tctaactctg  | catagacagg | gtctagattt | tgtaaaccac  | 1020 |
| aatgtataac  | tgcagtttag | ttaaattaca  | atttgaagtc | ttgtgggttt | tatatagcta  | 1080 |
| ggcactttat  | tactcttttg | aactgaaagc  | acactccctt | ataggttcat | gtaactgtcc  | 1140 |
| tgtaataaagg | tgcttataaa | tggaaacaact | acacagccta | gttttgccac | aaccttttag  | 1200 |
| atctaaaaag  | ttttaaaagc | ttctaaatgt  | ctaataataa | gggagatgct | tatagccaca  | 1260 |
| acatctattt  | taccaatatt | gtttccatta  | cactaccttg | gattttgcat | gagtgcagta  | 1320 |
| agtaacccaa  | gatgccataa | aaaaaaaact  | gatcgttttc | tgacttaatc | agttactgtg  | 1380 |
| gtttcactaa  | aagctaccgt | ggtggagtga  | agtcagtcag | ggaagggttg | tttatgttac  | 1440 |

004221 "564950

```

atttattttca ccagaactat tttaatatat caaagggggtt tactatgcc aacaaaaattc1500
tagggaaaaa tactgctaaa aatggatgcc tcatcagaac atgctgttga gtccaatgtg1560
ccataagaca ttttagcatg ttaaatagca cttttaatag caaaaaaagg cacatcaact1620
gcgaagttat ccttagtttg caaatgcttt ttctagatta atgatttttc aatcattagg1680
gtactagaca catcagccta aagtggcatc tgggaattgaa tggatttact gataatgatc1740
agtcttttagt cttccctttg ttatatgact ttatagggtta tgattgatca aatttacgtt1800
ttactaatgg taaggggtgag ggtcataggg cagggttttg gttttctagt actgttgaaa1860
actgcaagta ttggctattt gtatacttag ccataacttg gtgaaaaaaa acctgagcag1920
tgtctatgta ttaatgcgtt ggaaagaaaag ctgcttgtgt ttgctttgtt aattgcctca1980
ggatattttct tttaaaataa gctgttttaa gaggaacaga agggaaatct gctacctagt2040
ctatacacag cgtgaacctc acaggggggt tctgataccc tcaaacatgg agaacagtaa2100
gggagcagag tgggttaagga ctttcaggaa cttaactatt ctggaataag gaatgaatca2160
actgaccttg ggccagcagg tttttaacta aattgttact tgcctttctc acccagttaa2220
tcagtctctg tacttgtttc cctttttgaa acaagtgtct tgggttaacta attctgtttt2280
atgggtgtgc taaattcata gcagggtgctt tattctttgc ttttagtcaa accattccat2340
atcagaattt tccttggttt actatagata tttggcttta agttgttgtt tgtgtttttt2400
aatgtacaat gttctgataa atttgactgt taaattgcta tagctagcaa tcattttaca2460
tatgtaaaat tgcattccct ttgtatttca tgtgtaattc accaattaag tgcagtttat2520
attcaggttg gattatgcat gtttaggtta acgaaagctg tgtcttactt gatttattct2580
ttaaaaaataa agttccctga atatttgaaa aaaaaaaaaa aaaaaaaa 2628

```

<210> 43  
 <211> 2535  
 <212> DNA  
 <213> homo sapiens

<400> 43

```

agttcggcac agggggaggga acctggccct gggaggaggc tgttgcgtgc tctacagaa 60
tcccgttctg aaggggaagag catgtttgag ggcgtcccca ccatgcgtga gagctcccc 120
aaacagtaca tgcagctcgg aggcagggtc ttgctggttc tgatgttcat gacctcctt 180
cactttgacg ccagcttctt ttctattgtc cagaacatcg tgggcacagc tctgatgatt 240
ttagtggcca ttggttttaa aaccaagctg gctgctttga ctctgttgt gtggctctt 300
gccatcaacg tatatttcaa cgccttctgg accattccag tctacaagcc catgcatgac 360
ttcctgaaat acgacttctt ccagaccatg tccgtgattg ggggcttgct cctgggtggtg 420
gccctgggct ctgggggtgt ctccatggat gagaagaaga aggagtggta acagtcacag 480
atccctacct gcctggctaa gaccctgggc cgtcaaggac tgggttcgggg tggattcaac 540
aaaactgcca gcttttatgt atcctcttcc cttccctccc cttggtaaaag gcacagatgt 600
tttgagaact ttatttgag agacacctga gaatcgatgg ctggaagcc tccccacgc 720
cagtctggcg tctgaccctt cagtgcaggc cagcctggca gctggaagcc tccccacgc 720
cgaggctttg gagtgaacag cccgcttggc tgtggcatct cagtcctatt tttgagttt 780
tttgtggggg tacaggaggg ggccttcaag ctgtactgtg agcagacgca ttgggtattat 840
cattcaaagc agtctccctc ttatttgtaa gtttacattt tttagcgaaa ctactaaatt 900
attttgggtg gttcagccaa acctcaaaac agttaatctc cctggtttaa aatcacacca 960
gtggctttga tgttgtttct gcccgcatt gtattttata ggaatagtga aaacatttag1020
ggacacccaa agaattgatgc agtattaaag ggggtgtaga agctgctgtt tatgataaaa1080
gtcatcggtc agaaaatcag cttggattgg tgccaagtgt tttattgggt aacaccctgg1140
gagtttttagt agcttgaggc aaggtggagg ggcaagaagt ccttggggaa gctgctggtc1200
tgggtgctgc tggcctccaa gctggcagtg ggaagggcta gtgagaccac acaggggtag1260
ccccagcagc agcaccctgc aagccagcct ggccagctgc tcagaccagc ttgcagagcc1320
gcagccgctg tgggcagggg gtgtggcagg agctcccagc actggagacc cacggactca1380
accagttac ctcacatggg gccttttctg agcaaggctc cgaaagcgca ggccgacctg1440
gctgagcagc accgcccctt cccagctgca ctgcacctgt ggacagcccc gacacaccac1500
tttctgagg ctgtcgtca ctcagattgt ccgtttgcta tgccgaatgc agccaaaatt1560
cctttttaca atttgtgatg ccttaccgat ttgatcttaa tctgtattt aaagttttct1620
aacactgcct tatactgtgt ttctctttt gggggagctt aactgcttgt tgctccctgt1680
cgtctgcacc atagtaaatg ccacaagggg agtcgaacac ctctctggcc cctagacct1740
tctgtgggca gctggctca gcctgtctcc agggctgctg cggccagcc ccgagcctgc1800
ctccctcttg gcctctcatc cattggctct gcagggcagg ggtgaggcag gtttctgctc1860
ataagtgcct ttggaagtca cctaccttt taacacagcc gaactagtcc caacgcgttt1920
gcaaataatt ccctggtagc ctacttccct acccccgaat attggttaaga tcgagcaatg1980
gcttcaggac atgggttctc ttctcctgtg atcattcaag tgctcactgc atgaagactg2040
gcttgtctca gtgtttcaac ctcaccaggg ctgtctcttg gtccacacct cgctccctgt2100

```

09673395.12200



```

tagtgccgta tgacagcccc catcaaata ccttggccaa gtcacgggtt ctctgtgggtc2160
aaggttggtt ggctgattgg tggaaagtag ggtggaccaa aggaggccac gtgagcagtc2220
agcaccagtt ctgcaccagc agcgccctcg tcctagtggg tgttcctgtt tctcctggcc2280
ctgggtgggc tagggcctga ttcgggaaga tgcccttgca gggaggggag gataagtggg2340
atctaccaat tgattctggc aaaacaattt ctaagatttt ttgctttat gtgggaaaca2400
gatctaaatc tcattttatg ctgtatttta tatcttagtt gtgtttgaaa acgttttgat2460
ttttggaaac acatcaaaat aaataatggc gtttgttgta aaaaaaaaaa aaaaaaaaaa2520
aaaaaaaaa aaaaaa 2535

```

<210> 44  
 <211> 805  
 <212> DNA  
 <213> homo sapiens

```

ggcacgagcg gcacgagcca tctccatccc cggagcatct gtatgattca gaagtacaac 60
cacgatgggg aagcaggctcg gctggaggct tttagccaag gggaaagtgt cctaaaggaa120
cccaagtacc aggaagagct ggaggacagg ctgcatttct acgtggagga atgtgactac180
ttgcagggct tccagatcct gtgtgacctg cacgatggct tctctggggg aggcgcgaag240
gcgccagagc tgctacaaga tgaatattca gggcggggaa taataacctg gggcctgcta300
cctggctccc accatcgtgg ggaggcccag agaaacatct atcgtctatt aaacacagct360
tttggctctg tgcacctgac tgcacacgc tctcttgtct gccccttgct cttgggtggg420
agcctggggc tgcgaccgca gccacctgtc agcttccctt acctgcatta tgatgccact480
ctgcccttcc actgcagtgc catcctggct acagccctgg acacagtcac tgttccttat540
cgctgtgtt cctctccagt ttccatgggt catctggctg acatgctgag cttctgtggg600
aaaaagggtg tgacagcagg agcaatcatc cctttcccct tggctccagg ccagtccctt660
cctgattccc tgatgcagtt tggaggagcc accccatgga cccactgtg tgcatgtggg720
gagccttctg gaacacgttg ctttgcccag tcagtgggtg tgagggggta tagacagagc780
atgccacaca agccacagac ttaat 805

```

<210> 45  
 <211> 1279  
 <212> DNA  
 <213> homo sapiens

```

cggaagtagc cgcaggcatg gcggcggtga tgccgctgtt gctctgctcg tctgttgct 60
cctggggccc ggcgggtggt gccttgcaaa acccccacgc gacagcctgc gggaggaact 120
tgtcatcacc ccgctgcctt ccggggacgt agccgccaca ttccagttcc gcacgcgctg 180
ggattcggag cttcagcggg aaggagtgtc ccattacagg ctctttccca aagccctggg 240
gcagctgata tccaagtatt ctctacggga gctgcacctg tcattcacac aaggcttttg 300
gaggaccoga tactgggggc cacccttccg gcaggcccca tcaggtgcag agctgtgggt 360
ctgggttcaa gacactgtca ctgatgtgga taaatcttgg aaggagctca gtaatgtcct 420
ctcagggatc ttctgcgcct ctctcaactt catcgactcc accaacacag tcaactccac 480
tgctccttc aaacccctgg gtctggccaa tgacactgac cactactttc tgcgctatgc 540
tgtgctgccg cgggaggtgg tctgcaccga aaacctcacc ccctggaaga agctcttgcc 600
ctgtagttcc aaggcaggcc tctctgtgct gctgaaggca gatcgcttgt tccacaccag 660
ctaccactcc caggcagtgat atatccgccc tgtttgcaga aatgcacgct gtactagcat 720
ctcctgggag ctgaggcaga ccctgtcagt tgtatttgat gccttcatca cggggcaggg 780
aaagaaagac tggctccctc tccgatgtt ctcgccgaac ctcacggagc cctgccccct 840
ggcttcagag agccaggtct atgtggacat caccacctac aaccaggaca acgagacatt 900
agaggtgcac ccacccccga ccactacata tcaggacgtc atcctaggca acctcctgaa acctcaacat1020
ctatgccatc tatgacttgc ttgacaccgc catgatcaac aactctcgaa tctgcatgc1080
ccagctcaag tggaagagac cccagagaaa tgaggccccc ccagtgcctt tctgcatgc1140
ccagcggtag gtgagtggct atgggctgca gaagggggag ctgagcacac tgctgtacaa1200
caccaccca taccgggccc tccgggtgct gctgctggac accgtacctt ggtatctgcg1260
gctgttaccat ccactaccag cctgcccagg accggctgca accccacctc ctggagatgc1260
tgattcagct gccggccaa 1279

```

<210> 46  
 <211> 1923

00221 56E2950

<212> DNA  
<213> homo sapiens

<400> 46

gcgcaagaca caggaggccc aggcggcgag tcaggacatg gcggcgattt gcagattcca 60  
atctctctgt ttctgcggcg attgaacacc caacattggc gaccgggatc gcggaaagtg 120  
atggctgtcg tcccggcgct tctctcagga caggacgtgg gatcatttgc atatcttaca 180  
attaaagaca gaataccaca gatcttaact aagggttattg atacattgca tcgacataaa 240  
agtgaatttt ttgagaaaca cggagaggaa ggcgtggaag ctgaaaagaa agctatctct 300  
ctcctttcta aattacggaa tgaattgcaa acagataaac catttatccc cttgggttgag 360  
aaatttggtg atactgatat atggaatcag tacctagaat atcaacagag tcttttaaat 420  
gaaagtgatg gaaaatcaag atggttctac tcaccgtggg tggtggtaga atgtttacatg 480  
tatcgaagaa ttcatagaagc aattatccag agtccaccaa tcgattactt tgatgtattt 540  
aaagaatcaa aagagcaaaa tttctatggg tcacaggaat ccatcattgc tttatgtact 600  
cacctgcaac aattgataag aactattgaa gacctagatg aaaatcagct gaaagatgag 660  
ttttttaaac ttctgcagat ttcactgtgg ggaaataagt gtgatctgtc tctctcaggt 720  
ggagaaaagta gttctcagaa taccaatgta ctaaattcat tggaagacct aaaacctttc 780  
atttttattga atgatatgga acatctttgg tcattgctta gcaattgcaa gaaaacaaga 840  
gaaaaagctt ctgctactag agtgtatatt gttctcgata attctggatt tgagcttgtt 900  
acagatttaa tattagccga cttcttggtg tectctgaac tggctactga gggtcatttt 960  
tatggaaaaa caattccatg gtttgtttct gataactata tacatgattt taattgggta1020  
attgaacagg taaaacacag taatcataag tggatgtcca agtgtggggc tgactgggaa1080  
gagtatatta aaatgggtaa atgggtttac cacaatcata tattttggac tctgcctcat1140  
gagtactgtg caatgcctca ggttgccact gacttatatg ctgaactaca gaaggcacat1200  
ttaattttat tcaagggtga tttgaattac aggaagtga cagggtgacag aaaatgggag1260  
ttttctgttc catttcatca ggctctgaat ggcttccatc ctgcaccact ctgtaccata1320  
agaacattaa aagctgaaat tcaggttggg ctgcagcctg ggcaagggga acagctcctg1380  
gcctctgagc ccagctgggtg gaccactgga aaatatggaa tatttcagta cgatgggtccc1440  
ctttgacttg atttaggagc tctcagttgc atagaaagat ctgggtgagca ccttttcatc1500  
cccagaaaag gagcacgtga attgagtcgc ctggcggctc tgtacgcgct cagggaagct1560  
tagcttcttg gtgcccactc acgtgcactg gatgattttt cttttgaaca ttttgccccal620  
ctacactggt tttggggata gctgggttaa gcaagttaaa gatatttaca tttatattgg1680  
agatttttaag caactttttt ttcagggttaa atatataatt tcaaagtgct tttaaatgga1740  
ccttaatttt gaagtgggta gggccaaaaa ataaaggag ggctcctttg aggtaggtac1800  
ccttggcctt tctaaaaag cccctcaatg ggatttagat ccgggggggt ggggttattt1860  
tccttggttt ggccatgaaa atccttgga cgggcttatg cccttttgaa aaggggggtt1920  
ttt 1923

<210> 47  
<211> 706  
<212> DNA  
<213> homo sapiens

<400> 47

catttttacga caggcgggat tgttttgtgg ctgtcagctt tctccgtggg ctgagtttgt 60  
ggctgcattt ttatctctgg tggctctgct acggcggcgc agaaatgagg cagaagcgga120  
aaggagatct cagccctgct gagctgatga tgctgactat aggagatgtt attaaacaac180  
tgattgaagc ccacgagcag gggaaagaca tcgatctaaa taagggtgaaa accaagacag240  
ctgccaaata tggcctttct gcccagcccc gectgggtgga tatcattgct gccgtccctc300  
ctcagtatcg caaggctctg atgcccaggt taaaggcgaa acccatcaga actgctagt360  
ggattgctgt cgtggctgtg atgtgcaaac cccacagatg tccacacatc agttttacag420  
gaaatatatg tgtatactgc cctgggtggac ctgattctga ttttgagtat tccaccaggt480  
cttacactgg ctatgagcaa cctccatgag agctattccg tgccagatat ggaccctttt540  
ccttacagga caaggacacc ggattaggaa cagtttaaaa caagttgggt tcgtagt3600  
gggttaagtg ggagtttgtt tgtggatggg gtgggaactt tttggggcgg ttccagagga660  
ttacagagtt atttttattt cggaagttta cgtgatgggt tttccg 706

<210> 48  
<211> 749  
<212> DNA  
<213> homo sapiens

002221 " 56EE2950

<400> 48

```
gacctatcct catctgtgca aggaggagt gccaaactct gagcccaggc tgttgcttcc 60
tggctctggtg gtgaatcctc catagtctgg tgagtgtagt gcccaactct ggagcccagg120
atgttgcttc cgggtctggt ggtgaatcct ccatagtctg gagatctcag cctgctgag180
ctgatgatgc tgactatagg agatgttatt aaacaactga ttgaagccca cgagcagggg240
aaagacatcg atctaaataa ggtgaaaacc aagacagctg ccaaatatgg cctttctgcc300
cagccccgcc tgggtggatat cattgcttgc cgtccctcct cagtatcgca aggtcttgat360
gcccaagtta aaggcgaaac ccatcagaac tgctagtggg attgctgtcg tggctgtgat420
gtgcaaacc cagagatgtc cacacatcag ttttacagga aatatatgtg tatactgccc480
tgggtgggac ctgattctga ttttgagtat tccaccagt cttacactgg gctatgagcc540
aacctccatg aggagctatt ccgtgccaga tatggaccct tttccttaca ggacaaggac600
accggattag gaacagttta aaacaagttg ggttcgtagt gtgggggttaa gtgggagttt660
gtttgtggat ggggtgggaa ctttttgggg ccgttccaga ggattacaga gttattttta720
tttcggaagt ttacgtgatg ggttttccg 749
```

<210> 49

<211> 857

<212> DNA

<213> homo sapiens

<400> 49

```
accttacc aa ggggagaaaa aaaccctcca ctttggctca ctgtgggttt ggcactaaga 60
ggcacgatat ctgaaggagg tcattccagt tttaaaagta cggacagtgc tgttggaact120
gaccacaaaa atgtattggt aaaaaaaaaat tgaaaaccag cagtgtattg ggtccccctg180
aaacctctgt gaatcggagg tgggcccagg aggggtgcagg acgcagcaga aatagtccca240
gaaaggagag acgggtcatg cagcgggctt gtgctttttt gtgtgtgttt gtgtgtttta300
caccatacat ctccaaatga agtattttatt aacaattgta gtgtaagcct gtgataaaaat360
agcacaaaagg ttcttttaag aagttcactt ttaaggcatc agaaaagtta atgtggcaaa420
cattttaatt aaaacatcag aagtaaattt tatttttaaac tttaggcctc tgaattttttc480
cagttaaacac agttcagcta tgtggcaaaag tcaatgggtg gcatctaaaa tgactttttta540
cattctacaa aaaaataaaa taaaataagg acacagcccc aaacggtgtc acctcttcgc600
ggccgctcca catgcacaga atctactagg atttgtcacg gccgggtggc acccgatttg660
ttttgactat acaacaaact tttttttcaa aagtatttgt tcaggataac tttaaaaata720
atataaaaat aaacaatgga tttgactttt ccctcaaaat tgaaaagaaa ggggtggggg780
gaggtgttaa ccattggcct tttttttttt ggagggggcc cattgggatt gtaaggccct840
ggggttccgg cttttcc 857
```

<210> 50

<211> 268

<212> DNA

<213> homo sapiens

<400> 50

```
ccgcgcccgg cccccaggca attttaataa taaatcttaa tagatggggt aagagctgcc 60
ttcatcccat acagagaata caatggtgct agactaagta gagattttat ttcagcttaa120
agattctggt tgatgtctga aattacatgt ttaggcggca tggggaacag gactgttctt180
tagcatcagt ttcacaatta ctttaattcta ctaggtttca ttcaccttat aattctgaaa240
tttcatcagc agtggggaac agaaaagg 268
```

<210> 51

<211> 297

<212> DNA

<213> homo sapiens

<400> 51

```
ctgatgtgca ctctagggtta gtaaccattt ttgtgaaaaa tttagagaaa ttctttgagc 60
agcttccact gaaacactaa aacccaatag ggccaaaggc ccataacctg aggaaacctt120
atttattgct taatccaaca taggctatga aagttttgag tttcctcttg tgtattagaa180
```

tttcattcct atttggtgta gagagtatag tacggggaat cagtaaatta aatgaagtaa240  
actaaagatt acacctttgc tgctggcact aagcgaaaag caaaaccagt ggctgtc 297

<210> 52  
<211> 590  
<212> DNA  
<213> homo sapiens

<400> 52

acgggtcaaaa tgataactca tgtattttat tccaacaaca tttgggtttat aaaggaatac 60  
aaacaggcac aaaacatggg tcagaagatt tattaagtaa acttgctaaa atatggacag120  
atacacttag cagtcaaaca gttgaatatt cattgctacc tcattaaagt ttttgtatct180  
gtattaccag gtccaaacat aaaaaccacc tctgttcaaa aaataaatgt tcagagagct240  
gtatgttctt ttgtctggta tgtacatttt aaaaaaacac ctctttccag tcttgctaac300  
caagaatatt agtcatataa aagaacttag aatttttttc cccaagtaca agctatcttt360  
tgctccaaaa cagttctgaa ggtttttatt atattttatc ttatcccgag ggaccaacag420  
caggcatacc tttgccaggc cttcttgtag aaagacacag agccgtaaag gcaaaaaataa480  
aattgcaata aagtatatgg tattgggggc agggagaacc agaaaccctc aaggggacca540  
attttttagca cgttcttttt ttagggttta ccctgtggag taagaactag 590

<210> 53  
<211> 1714  
<212> DNA  
<213> homo sapiens

<400> 53

ggaaggggaa gtttcgcctc agaagggctgc ctcgctggctc cgaattcggg ggccgccacgt 60  
ccgcccgtct ccgccttctg catcgcggtt tcggcgggctt ccacctagac acctaacagt 120  
cgcgagccg gccgcgtcgt gagggggctg gcacggggag tcgggcggctt ttgtgcatct 180  
tggtacactg tgggtcgaag atgtcggaca tcgggagactg gttcaggagc atcccggcga 240  
tcacgcgcta ttgggtcgcc gccaccgctg ccgtgccctt ggctcgcaaa ctccggcctca 300  
tcagcccggc ctacctcttc ctctggcccg aagccttctt ttatcgcttt cagatttgga 360  
ggccaatcac tgccaccttt tatttccctg tgggtccagg aactggattt ctttatttg 420  
tcaatttata tttcttatat cagtattcta cgcgacttga aacaggagct tttgatggga 480  
ggccagcaga ctattttatt atgctcctct ttaactggat ttgcatcgtg attactggct 540  
tagcaatgga tatgcagttg ctgatgattc ctctgatcat gtcagtactt tatgtctggg 600  
cccagctgaa cagagacatg attgtatcat ttgggtttgg aacacgattt aaggcctgct 660  
ttattggaaa tctgggttga catctttatt ttttccaat gtccagatac ccaatggact 720  
tgaggaggaag aaattttcta tccacacctc agtttttgta ccgctggctg cccagtagga 840  
gaggaggagt atcaggattt ggtgtgcccc ctgctagcat gaggcgagct gctgatcaga 900  
atggcgaggg cgggagacac aactggggcc agggctttcg acttgagac cagtgaaggg 960  
gcgccctcgg gcagccgctc ctctcaagcc acatttcttc ccagtgtgg gtgcgcttaa1020  
caactgcgtt ctggctaaca ctgttggacc tgaccacac tgaatgtagt ctttcagtac1080  
gagacaaagt ttcttaaata ccgaagaaaa atataagtgt tccacaagt tccagattct1140  
cattcaagtc cttactgctg tgaagaacaa ataccaactg tgcaaatgca aaaactgact1200  
acattttttg gtgtcttctc ttctcccctt tccgtctgaa taatgggttt tagcgggtcc1260  
tagtctgctg gcattgagct ggggctgggt caccacaccc ttcccaaaag gacccttatc1320  
tctttcttgc acacatgcct ctctcccact tttcccaacc cccacatttg caactagaag1380  
agggttgcca taaaattgct ctgcccttga caggttctgt tatttattga cttttgccaa1440  
ggcttggtca caacaatcat attcacgtaa ttttcccctt ttgggtggcag aactgtagca1500  
atagggggag aagacaagca gcggatgaag cgtttttctc gcttttgga ttgcttcgac1560  
ctgacatccg ttgtaaccgt ttgccacttc ttcagatatt tttataaaaa agtaccactg1620  
agtcagttag ggccacagat tggatattaat gagatacgag ggttgttgct ggggtgtttg1680  
tccgagtaag tgagaagggtg agtggattga ctac 1714

<210> 54  
<211> 1340  
<212> DNA  
<213> homo sapiens

00422T "56E/950

<400> 54

```
ctcgagccgc tcgagccgaa tcggtctcgag ctgaaaaagg gctacctgac cctgtcagac 60
agtggggaca aggtggccgt ggaatgggac aaagaccatg gggtcctgga gtcccacctg 120
gcggagaagg ggagaggcat ggagctatcc gacctgattg ttttcaatgg gaaactctac 180
tccgtggatg accggacggg ggtcgtctac cagatcgaag gcagcaaagc cgtgccctgg 240
gtgattctgt ccgacggcga cggcaccgtg gagaaaggct tcaaggccga atggctggca 300
gtgaaggacg agcgtctgta cgtgggcggc ctgggcaagg agtggacgac cactacgggt 360
gatgtggtga acgagaaccc ggagtgggtg aagggtgggtg gctacaaggg cagcgtggac 420
cacgagaact ggggtgtccaa ctacaacgcc ctgcccggctg ctgcccggcat ccagccgccca 480
ggtaacctca tccatgagtc tgcctgctgg agtgacacgc tgcagcgtg gttcttctctg 540
ccgcgccgcg ccagccagga gcgctacagc gaggaaggac gacgagcgca agggcgccaa 600
cctgctgctg agcgcctccc ctgacttcgg cgacatcgct gtgagccacg tcggggcggt 660
gggtcccccact cacggcttct cgtccttcaa gttcatcccc aacaccgacg accagatcat 720
tgtggccctc aaatccgagg aggacagcgg cagagtcggc tcctacatca tggccttcac 780
gctggacggg cgcttctgtg tgccggagac caagatcgga agcgtgaaat acgaaggcat 840
cgagttcatt taactcaaaa cggaaaacact gagcaaggcc atcaggactc agcttttata 900
aaaacaagag gagtgcactt ttgttttgtt ttgttctttt tggaactgtg cctgggttgg 960
aggtctggac agggagccca gtcccgggccc ccatagtggg gcggggcactg gacccccggg 1020
ccccacggag gccgcggtct gaactgcttt ccatagtgcc atctgggtggg gatttcgggtc 1080
acttcaggca ttgactcaag gcctgcctaa ctggctgggt cgtttcttcc atccgacctc 1140
gtttcttttc tttcctatgt tcttttgttc agtgaatatc cctagagctc ctaccatatg 1200
tcaggcccta tgccctaccc tgagaacgca gtaagcatga aggtggacct gggttgctgg 1260
gaaccggagg gctaaccccc tttttcttcc caaatttggt gccttggaag aatcagggtc 1320
agccctgaag atccttgggg 1340
```

<210> 55

<211> 765

<212> DNA

<213> homo sapiens

<400> 55

```
caggattgaa acaagatggc gggttcgtgg tgagaagccg tcaaggagta gaaattggta 60
tgcttagaag cagattctaa aagcagtttc tcttcagaac atcttttttc ataccacttg 120
ataagcatct tgaacacca tggtgtgagc tgcagtaaaa tgggtgatgt caaagagaac 180
tatcttgaaa catttatctc cagtccaaaa tggagcttta tattgtgttt gtcataaatc 240
tacgtattct cctctaccag atgactataa ttgcaacgta gagcttgctc tgacttctga 300
tggcaggaca atagtatgct accacccttc tgtggacatt ccataatgaac acacaaaacc 360
tatccctcgg ccagatcctg tgcataataa tgaagaaaca catgatcaag tgctgaaaac 420
cagattggaa gaaaaagtgt aacaccttga ggaaggacct atgatagaac aacttagcaa 480
aatgttcttt actactaagc accgttggtg tctcatgga cggatatcaca gatgtcgtaa 540
gaatctgaat cctccaaaag acagatgatg cggagggttc tgggggaatc aaagagaaat 600
gtgcctcatt tgccatttga gaaaatgcag tctggtgtat tcagtaatat atagtaaagt 660
aataatgata aaatatcttt tcatatatta gaatgtgtac ttttatataa agtaattctg 720
gatttgacat tctcatthag ggggacctat tccttttttc gtttt 765
```

<210> 56

<211> 1647

<212> DNA

<213> homo sapiens

<400> 56

```
gcagccggag taagatggcg gcgctgaggg ctttgtgcgg cttccggggc gtcgcggccc 60
aggtgctgcg gcctggggct ggagtcagat tgccgattca gccagcaga ggtgttcggc 120
agtggcagcc agatgtggaa tgggcacagc agtttggggg agctgttatg taccgaagca 180
aagaaacagc cactggaag cctccacctt ggaatgatgt ggaccctcca aaggacacaa 240
ttgtgaagaa cattaccctg aactttgggc cccaacaccc agcagcgcat ggtgtcctgc 300
gactagtgat ggaattgagt ggggagatgg tgcggaagtg tgatcctcac atcgggctcc 360
tgacccgagg cactgagaag ctcatatgat acaagacctt tcttcaggcc cttccatact 420
ttgaccggct agactatgtg tccatgatgt gtaacgaaca ggctattct ctagtgtg 480
agaagtgtct aaacatccgg cctcctcctc gggcacagtg gatccgagtg ctggttggag 540
```



<210> 59  
 <211> 1630  
 <212> DNA  
 <213> homo sapiens

<400> 59

```

aaactgtgta atgccccatg taatccataa aattttaact tttcccccta acgtttttgc 60
tgaaaaatgt tgggaaaccc tcaacacgcc ttcctgaaaa caattaaaaat acttgaaacc 120
tgtgaacctt tcaaaaaaac ctcagggttg gaaaagaccc ccaaaccctt ttttaaggat 180
catttgtctc gcccatcaca ggatcttgga aatgtttccc taggggtgtg aaaaattaac 240
ccagggggga atgaagcaca ttttctggc aaccaaactt gagttcctca gagaacagat 300
gcagagagac ctgctcctgc ttgcccggct acagggggcca ctgtggagtc acactgaggc 360
tgtgaccggc cataagccca ggagagcccg tggcagctgt gccgaggcgc caggacctct 420
aagcgggaagc ttcccaagct aggaatggag caacactgca atgaaatgtg tccaccaagc 480
tcattgttcc tcccgggtgc ttataaagct cagatgtata gtgacgtatg gacaaataca 540
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa gcctttcttt ctacaggcca taagacacaa 600
attatatatt gttatgaagc actttttacc aacgggtcagt ttttacattt tatagctgcg 660
tgcgaaaaggc ttccagatgg gagaccatc tctcttgtgc tccagacttc atcacaggct 720
gctttttatc aaaaagggga aaactcatgc ctttcctttt taaaaaatgc ttttttgtat 780
ttgtccatac gtcactatac atctgagctt tataagcgcc cgggaggaac aatgagcttg 840
gtggacacat ttcattgcag tgttgctcca ttcctagctt ggggaagctt cgcttagagg 900
tcctggcgcc tcggcacagc tgccacgggc tctcctgggc ttatggccgg tcacagcctc 960
agtgtgactc cacagtggcc cctgtagccg ggcaagcagg agcaggctct tctgcatctg 1020
ttctctgagg aactcaagtt tgggtgccag aaaaatgtgc ttcattcccc cctggttaat 1080
ttttacacac ctaggaaac atttccaaga tcctgtgatg gcgagacaaa tgatccttaal 1140
agaaggtgtg gggcttttcc caacctgagg atttctgaaa gggttcacagg ttcaatattt 1200
aatgcttcag aagcatgtga gggtcccaac actgtcagca aaaaccttag gagaaaactt 1260
aaaaatatat gaatacatgc gcaatacaca gctacagaca cacattctgt tgacaaggga 1320
aaaccttcaa agcatgtttc tttccctcac cacaacagaa catgcagtac taaagcaata 1380
tatttgtgat tccccatgta attcttcaat gttaaacagt gcagtcctct ttcgaaagct 1440
aagatgacca tgcgcccttt cctctgtaca tataacctta agaacgcccc ctccacacac 1500
tgccccccag tatatgccgc attgtactgc tgtgttatat gctatgtaca tgtcagaaac 1560
cattagcatt gcatgcaggc ttcataattc ttctaagatg gaaagtaata aaatatattt 1620
gaaatgtacc                                     1630

```

<210> 60  
 <211> 1272  
 <212> DNA  
 <213> homo sapiens

<400> 60

```

tgcgcgcgag cccgtgtccc cacggcgggc agcagcggcg gcggcggcgg ctgaacgcgg 60
agggggcgga gggagcccg gcggcgggca gcagctacag cgaaatggcg gagaccgtgg 120
ctgacacccg gcggctgatc accaagccgc agaacctgaa tgacgcctac ggacccccca 180
gcaacttctt cgagatcgat gtgagcaacc cgcaaacggg gggggtcggc cggggccgct 240
tcaccactta cgaatcagg gtcaagacaa atcttccctat tttcaagctg aaagaatcta 300
ctgtagaag aagatacagt gactttgaat ggctgcgaag tgaattagaa agagagagca 360
aggctcgtagt tccccgctc cctgggaaag cgtttttgcg tcagttcctt ttagaggaga 420
tgatggaata tttgatgaca attttattga ggaaagaaaa caagggtcgg agcagtttat 480
aaacaaggtc gctggtcac ctctggcaca gaacgaacgt tgtcttcaca tgtttttaca 540
agatgaaata atagataaaa gctatactcc atctaaaata agacatgcct gaaatttggc 600
aagaaggggc aaaaacgtga ctattaatga ttgataagca ccagtgaaga agttcctaact 660
tttagcatgc tgcacagaaa ctggtataac atgccttcag tatactaaca ctcatatgct 720
cagtttttgt ttgttttggc agttgacaaa aagttaattt gcttttagtaa aaatccctca 780
ttccagcctt tctatataaa tagctctttt ttgctgtttt aatgtggtgc acactatagc 840
ctcacaaacc tgttattcca gtgtaactct cagtgtcgta actaaagtta ctggccttgg 900
cttatttgca cagtttttgc gtcttggttg cttcttgcat ctgattaact agaatatatt 960
tctttcccc ttttaatttg tgatgtcact tgaccccat tatgtgtagg agcactacac 1020
cattggtttc caatactgca cacataagat acatacttgt gtgcagaaag tatcttcctc 1080

```

caggcttgta atacccttca catggaagat taatgagggga aatctttata ttctgtataa1140  
aaacaaaagc aaattttatat actaaaatca tttgtctaaa aattttaagtt gttttcaa1200  
aaaaattaaa atgcatttct gatatgcaaa aaaaaaaaaa aagaaaaaga aaaaaagagg1260  
ggcggccgct ct 1272

<210> 61  
<211> 1914  
<212> DNA  
<213> homo sapiens

<400> 61

|             |             |            |             |            |             |      |
|-------------|-------------|------------|-------------|------------|-------------|------|
| tgcagcgcgt  | gcggtgctgcg | ctactgagca | gcgccatgga  | ggactctgaa | gcactgggct  | 60   |
| tcgaacacat  | gggcctcgat  | ccccggctcc | ttcaggctgt  | caccgatctg | ggctggctgc  | 120  |
| gacctacgct  | gatccaggag  | aaggccatcc | cactggccct  | agaagggaag | gacctcctgg  | 180  |
| ctcgggcccc  | cacgggctcc  | gggaagacgg | ccgcttatgc  | tattccgatg | ctgcagctgt  | 240  |
| tgctccatag  | gaaggcgaca  | ggtcgggtgg | tagaacaggc  | agtgagaggc | cttggttctg  | 300  |
| ttcctaccaa  | ggagctggca  | cggcaagcac | agtccatgat  | tcagcagctg | gctacctact  | 360  |
| gtgctcggga  | tgtccgagtg  | gccaatgtct | cagctgctga  | agactcagtc | tctcagagag  | 420  |
| ctgtgctgat  | ggagaagcca  | gatgtggtag | tagggacccc  | atctcgcata | ttaagccact  | 480  |
| tgcagcaaga  | cagcctgaaa  | cttcgtgact | ccctggagct  | tttgggtggg | gacgaagctg  | 540  |
| accttctttt  | ttcctttggc  | tttgaagaag | agctcaagag  | tctcctctgg | gaaggcagag  | 600  |
| tcacttgccc  | cggatttacc  | aggcttttct | catgtcagct  | acttttaacg | aggacgtaca  | 660  |
| agcactcaag  | gagctgatat  | tacataaccc | ggttaccctt  | aagttacagg | agtcccagct  | 720  |
| gcctgggcca  | gaccagttac  | agcagtttca | ggtaggtctgt | gagactgagg | aagacaaatt  | 780  |
| cctcctgctg  | tatgccctgc  | tcaagctgtc | attgattcgg  | ggcaagtctc | tgctctttgt  | 840  |
| caacactcta  | gaacggagtt  | accggctacg | cctgttcttg  | gaacagttca | gcatccccac  | 900  |
| ctgtgtgctc  | aatggagagc  | ttccactgcg | ctccagggtgc | cacatcatct | cacagttcaa  | 960  |
| ccaaggcttc  | tacgactgtg  | tcatagcaac | tgatgctgaa  | gtcctggggg | ccccagtcaa  | 1020 |
| gggcaagcgt  | cggggcccgag | ggcccaaagg | ggacaaggcc  | tctgatccgg | aagcagggtgt | 1080 |
| ggccccgggg  | atagacttcc  | accatgtgtc | tgctgtgctc  | aactttgatc | ttcccccaac  | 1140 |
| ccctgaggcc  | tacatccatc  | gagctggcag | gacagcacgc  | gctaacaacc | caggcatagt  | 1200 |
| cttaaccttt  | gtgcttcccc  | cggagcagtt | ccacttaggc  | aagattgagg | agcttctcag  | 1260 |
| tggagagaac  | agggggcccca | ttctgctccc | ctaccagttc  | cggatggagg | agatcgaggg  | 1320 |
| cttccgctat  | cgctgcaggg  | atgccatgcg | ctcagtgact  | aagcaggcca | ttcgggaggc  | 1380 |
| aagattgaag  | gagatcaagg  | aagagcttct | gcattctgag  | aagcttaaga | catactttga  | 1440 |
| agacaacctt  | agggacctcc  | agctgctgcg | gcatgacctc  | cctttgcacc | ccgcagtggt  | 1500 |
| gaagccccac  | ctgggccaatg | ttcctgacta | cctggttcct  | cctgctctcc | gtggcctggg  | 1560 |
| acgcccctac  | aagaagcgga  | agaagctgtc | ttcctcttgt  | aggaaggcca | agagagcaaa  | 1620 |
| gtcccagaac  | ccactgcgca  | gcttcaagca | caaaggaaag  | aaattcagac | ccacagccaa  | 1680 |
| gcccctcctga | ggttgttggg  | cctctctgga | gctgagcaca  | ttgtggagca | caggcttaca  | 1740 |
| cccttcgttg  | acaggcgagg  | ctctgggtgt | tactgacacg  | cctgaacaga | cagttctggg  | 1800 |
| gcggcgagtg  | ctggggccctt | tagctccttg | gcacttccaa  | gctggcatct | tgccccctga  | 1860 |
| caacagaata  | aaaatttttag | ctgccccaaa | aaaaaaaaaa  | aaaaaaaaaa | aaaa        | 1914 |

<210> 62  
<211> 608  
<212> DNA  
<213> homo sapiens

<400> 62

|            |            |            |            |            |             |     |
|------------|------------|------------|------------|------------|-------------|-----|
| aatggaacca | ggaattctta | attaagcccc | aagttcccaa | gtctccttag | cggaaaccgg  | 60  |
| aaattgcca  | aggaaagcaa | agaggagat  | gaccagtgat | acctccagtg | ccagaggtca  | 120 |
| ctttgtggag | ccaaatgcgt | gacatgggca | gtcgagactc | ggcatcttct | gtcccccgca  | 180 |
| ttaatgactc | tcaggaagga | ggatgtaatt | caaggcaagt | ttctaattcc | gaagctgcct  | 240 |
| gttcatgtta | acaggacttc | tttttattcg | tcaagatgta | ctggttccct | ggcaccttaa  | 300 |
| gggaaatcct | gataaaggca | aacctgttga | gccatttggt | cccataggat | cccaggacct  | 360 |
| aagtcctgtg | tttcatcggt | actaccatgt | gttccgtgag | ggagaactgg | aaggtgcctg  | 420 |
| caggactgtg | agtgatgtca | gaattctgca | aagctactac | gatcaaggaa | actggtgtgt  | 480 |
| gattcttcaa | aaggcctgat | tatttacctg | aacacatcat | atataaagaa | gaaatgctca  | 540 |
| cttaaaaaaa | aaagagggga | taaattaatt | accctgttaa | ttaaagagaa | aacttggtggg | 600 |
| gaagtacc   |            |            |            |            |             | 608 |



<210> 63  
 <211> 2674  
 <212> DNA  
 <213> homo sapiens

<400> 63

```
tgaagagaag ttaaggtgaa gagccgaaga gcctgatgcg tgatgagcgt ctaagaaagg 60
agaagcaaga gcagagaaga gagagagaaa gaacgggaga gagaaagggg agaaagagaa 120
aggaaaagac gaaggggaaga ggaagaaaga gaaaaagaaa gggctcgtga cagagaaaga 180
agaaagagaa gtcgttcacg aagtagacac tcaagccga catcagacag aagatgcagc 240
aggtctcggg accacaaaag gtcacgaagt agagaaagaa ggcggagcag aagtagagat 300
cgacgaagaa gcagaagcca tgatcgatca gaaagaaaac acagatctcg aagtcgggat 360
cgaagaagat caaaaagccg ggcgcgaaag tcatataagc acaggagcaa aagtcgggac 420
agagaacaag atagaaaatc caaggagaaa gaaaagaggg gatctgatga taaaaaagt 480
agtgtgaagt ccggtagtcg agaaaagcag agtgaagaca caaactga atcgaaggaa 540
agtatacta agaagaggt caatgggacc agtgaagaca ttaaactctga aggtgacact 600
cagtcgaatt aaaactgatc tgataagacc tcagatcaga cagaggtaag tgtattgttt 660
ctcactttga ttagggcttt ttgttactgt ttgacagtgc agcgtaagta tgcacagatg 720
aagatggaac taagccgagt aagaagacat acaaaagcct cttctgaagg aaaagacagt 780
gtagtcctgc aaaacatttt gaggtacatt gttttgtctc agctattttg tagcagactc 840
tgcccccat tagtgtgcct ctttggaat tatcgccac atttgtaata tagtcgcat 900
tgaaaagtta attatccttt ttttagggat tttgatgtca tttctttttt ttttttaata 960
aaaaggttga actgtttttt tttttctttt tgggtattaag tccatcttgt gttggtacat 1020
tgccagagac atatgcttta aaaacttaaa tatttcggag gcacatgttg gactactttg 1080
ttttaattaa actgctagta tttctttgtc aaggatgttt ctagtttttt gctttattgc 1140
cttgcatctt aatgcagttt gttctgtaac tcgagagcca gtagcattgg attgatggaa 1200
gtgtagggtt tatgaattat tgcagctgac taccatacct cacacagcgt tgggtgttgt 1260
agcggcccat gaaaagccaa attaaaaatc aaggattcag tcaaactaag cagggtactca 1320
tgccaggtac tcctttctct acccacatcc atgtttgaat gctattgcct gtgatcttta 1380
cgcttaactg ttgtgtatct tttttgttct ttacaagaag tgcagagggg tttttgtgt 1440
attgctgtaa aacttataaa acaaatgtta acagaatgga attttttttc aactgtatgt 1500
agggtgcag tgggtggccag aattagatat ctttaagaa ttttaaatat aataaacact 1560
tcatattatt cgccttggtt cactcaatgc aattctcaag tctataagag gtatgtgctt 1620
aatatttcct actgtgtagg agaatttgca gtcagccata ggtatgtagg aatagtcact 1680
cactggctga tacatttaaa gcagcagtgat gaatagcaag gacagacacc ttcaatttgt 1740
gaaatcaaag aactgatgca ctatatagaa cgaatttggt tttttaaaga aatattaaaa 1800
gttaggtact gtaagtgttc ttaaaacctg taaacttcat tctgtgggct agtgggtgtg 1860
gacaaaatat tcctaataaa aggaagtacc aattagttga tttgttggtg gcattcccct 1920
tttgggaaag caatgtaagg ttatgtctgt gtatgtcatt cacacttagg caagcataca 1980
caggcacatg gctttaagaa ccacactgat gccttgataa ttaaaaagaa tacaagcatt 2040
ccatgtacac atgttaatta gcagttagtg actgggcca cactttctca taaaaattgg 2100
ccttttacat gttgtctaata tatcattttt ccccaaattt tgcgttgtag gactactgtt 2160
cgaagatttt tggaagaata ctgagaacgg cataaagtga agatcgacat ttaaaaaatg 2220
aggtgaaaga aagctatagt ggcatagaaa aagtataaag ctcagttagt tttttatta 2280
ttattattat taaaagttaa ttcaggactg atgtgacctt ccagatttca gaacatgtgt 2340
taatagtata tatgccactg aaaacttagg tcctgtatca tacttttttc tttaagactt 2400
tttaagaaat attacttaaa catgtggctt gctcagtggt taattgcaag ttttcaatct 2460
tggactttga aaacaggatt aaacgttagt attcgtgtga atcagactaa gtgggatttc 2520
atttttcaaa ctctgctcta cttagccttt ggatttagaa gtaaaaataa agtatctctg 2580
actttctgtt acaaagttga ttgtctctgt cattgaaaag ttttagtatt aatctttttc 2640
taataaagtt attgactctg aaaaaaaaaa aaaa 2674
```

<210> 64  
 <211> 326  
 <212> DNA  
 <213> homo sapiens

<400> 64

```
gacaaatgag ggtttggcat gcagctcgtc atcttaagag ttactatctt cttgccctgg 60
tgtttcgccc ttccagtgcc ccctgctgca gaccataaag gatgggactt tgttgagggc 120
```



```

aaagttttctc tgaagcaaaa tgataggcat cattctaact tcaggaacaa aagccagttc1020
tgttttatga aatattaaac atgaagaaaa cttgtatatt ctaatgtttg ccaggaaagg1080
ctagggttcag tagatgagac attattttaa agataaaattt aaaaagatgg taaatgaaca1140
cttgttttta tagacaatat ttgtttgaaa ctatgtaatt ttctggctaa ttttcttgta1200
attaaatgat tttttaaaaa aagaa
1225

```

```

<210> 68
<211> 1093
<212> DNA
<213> homo sapiens

```

```

<400> 68

```

```

gagggcgggc ctgtttccgg ggaggcgcgt ggggcttgag gccgagaacg gcccttgctg 60
ccaccaacat ggagactttg taccggtgtcc cgttcttagt gctcgaatgt cccaacctga 120
agctgaagaa gccgccctgg ttgcacatgc cgtcggccat gactgtgtat gctctggtgg 180
tggtgtctta cttcctcatc accggaggaa taatttatga tgttattggt gaacctccaa 240
gtgtcgggtc tatgactgat gaacatgggc atcagaggcc agtagctttc ttggcctaca 300
gagtaaatgg acaatatatt atggaaggac ttgcatccag cttcctattt acaatgggag 360
gttttaggttt cataatcctg gaccgatcga atgcaccaa tatcccaaaa ctcaatagat 420
tccttcttct gttcattgga ttctgtctgtg tcctattgag ttttttcatg gctagagtat 480
tcattgagaat gaaactgccg ggctatctga tgggttagag tgcctttgag aagaaatcag 540
tggtactctg atttgctcct gtcaatgaag ttttaaaggc tgtaccaatc ctctaataatg 600
aaatgtggaa aagaatgaag agcagcagta aaagaaatat ctagtgaaaa aacaggaagc 660
gtattgaagc ttggactaga atttcttctt ggtattaaag agacaagttt atcacagaat 720
tttttttctt gctggcctat tgctatacca atgatgttga gtggcatttt ctttttagtt 780
tttcattaaa atatattcca tatctacaac tataatatca aataaagtga ttatttttta 840
caacctctt aacatttttt ggagatgaca tttctgattt tcagaaatta acataaaaatc 900
cagaagcaag attccgtaag ctgagaactc tggacagttg atcagcttta cctatggtgc 960
tttgctttta actagagtgt gtgatggtag attatttcag atatgtatgt aaaactgttt1020
cctgaacaat aagatgtatg aacggagcag aaataaatac tttttctaata taaaaaaaaa1080
aaaaaaaaa aaa
1093

```

```

<210> 69
<211> 309
<212> DNA
<213> homo sapiens

```

```

<400> 69

```

```

cacaaagtga ttgtggtatg gaacaatatt ggagagaagg caccagatga gttatggaat 60
tctctagggc cccaccctat ccctgtgatc ttcaaacaac agacagcaaa caggatgaga120
aatcgactcc aggtctttcc tgaactggaa accaatgcag tggtgatggt agatgatgac180
acactcatca gcaccccaga ccttggtttt gctttctcag tttggcagca atttcttgat240
caaattgtag ggatttggtt cctagaaagc acgtctttta ctttcattca aggtatctac300
agttattgg
309

```

```

<210> 70
<211> 380
<212> DNA
<213> homo sapiens

```

```

<400> 70

```

```

ctcatctgat cccttttatg gccaaatcat ctttcagagt agggaaacact cagacattct 60
gtgcatgttg ttcccccaaa gcatggtcat cacaaagtcc tgagttctgg tgtgtgctcc120
cgctcctcgg gtatacagag agaaggcagg aatcaggagt tccagaagca tatacatgtg180
gctacccccag caacaagcgg catcctgtgc tcagataagc tgcatgggtg ggaagtgttt240
ttcctcgcac gttgaggctt agtggagatg ggcaccactg ccatttgctc agaagaaggc300
tggtctgggtc ctaactgcat ccacactgc ccagatcatt ctagataggt tattttctga360
atgtttatag atttcttata
380

```

```

<210> 71

```

004221 060796 09673395 12200

<211> 1253  
 <212> DNA  
 <213> homo sapiens

<400> 71

```

gcgggcccgac tccaggttagg agccttgatg ccggagggga cagtgggtcg ccgagagcgc 60
ccggaggggaa ccgcctggcc ttcggggacc accaattttg tctggaacca ccctcccggc 120
gtatcctact ccctgtgccc cgaggccatc gcttcactgg aggggtcgat ttgtgtgtag 180
tttggtgaca agatttgcac tcacctggcc caaacccctt ttgtctcttt ggggtgaccg 240
aaaactccac ctcaagtttt cttttgtggg gctgcccccc aagtgtcggt tgttttactg 300
tagggctctcc ccgcccggcg cccccagtg tttctgaggg cggaaatggc caattcgggc 360
ctgcagttgc tgggcttctc catggccctg ctgggctggg tgggtctggg ggcctgcacc 420
gccatcccgc agtggcagat gagctcctat gcgggtgaca acatcatcac ggcccaggcc 480
atgtacaagg ggctgtggat ggactgcgtc acgcagagca cggggatgat gagctgcaaa 540
atgtacgact cggtgctcgc cctgtccgcg gccttgccag ccactcgagc cctaattggtg 600
gtctccctgg tgctgggctt cctggccatg tttgtggcca cgatgggcat gaagtgcacg 660
cgctgtgggg gagacgacaa agtgaagaag gcccgatatag ccatgggtgg aggcataatt 720
ttcatcgtgg caggtcttgc cgccttggtg gcttgctcct ggtatggcca tcagattgtc 780
acagactttt ataacccttt gatccctacc aacattaagt atgagtttgg ccttgccatc 840
tttattggct gggcagggtc tgccctagtc atcctgggag gtgcactgct ctctgttcc 900
tgtcctggga atgagagcaa ggctgggtac cgtgcacccc gctcttacc taagtccaac 960
tcttccaagg agtatgtgtg acctgggatc tccttgcccc agcctgacag gctatgggag 1020
tgtctagatg cctgaaaggg cctggggctg agctcagcct gtgggcaggg tgccggacaa 1080
aggcctcctg gtcactctgt ccctgcactc catgtatagt cctcttgggt tgggggtggg 1140
gggggtgccgt tgggtgggaga gacaaaaaga gggagagtgt gctttttgta cagtaataaa 1200
aaataagtat tgggaaacaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 1253

```

<210> 72  
 <211> 439  
 <212> DNA  
 <213> homo sapiens

<400> 72

```

ctaaggggag gacaggcaga aaccaggaat gccaaacttaa acctgtttgg tgctctgact 60
gtttgttagt atcactctca agaatgaaga gaaacctcaa cctttctgtt tccggccaac 120
tttattgaat ttgttttttt aaatgcagtt tacatgcagt ttctttgaaa agtcatgttg 180
aathtagatc tgttctctga gtaagacttg gcgagtatgt gaaacttgac tcaagttaca 240
tttctttttt tctgtccccc aaacgttcac gcttcttata ggctccactt tgaggctctg 300
atgaacattc cagtgtgtgt gttggatgtc aatgatgatt ttgctgagga agtaacaaaa 360
caagaagacc tcatgagaga ggtgggaagg actttaactc ctgtttttct ggtgggttcc 420
ctttggttgt accttttaa

```

<210> 73  
 <211> 1252  
 <212> DNA  
 <213> homo sapiens

<400> 73

```

tggacctgcc cgacgccctg ctgcccagact tgcccgcgct ggtgggcccc aagcagctga 60
tcgtgctggg aaacaaagtg gacctcctgc cccaggatgc tcctggctac cggcagaggc 120
tgccggagcg actgtgggag gactgtgccc gcgcggggct cctgctggcc cctggcacca 180
agggccacag cgcccgcgtc aggacgagcc acaggacggg gagaatccga atccgccgaa 240
ctgggtcccgc acagtgggtc gggacgtgcg gctgatcagc gccaagaccg gctatggagt 300
ggaagagttg atctctgccc ttcagcgctc ctggcgctac cgtggggacg tctacttagt 360
gggcgccacc aacgcgggca aatccactct ctttaacacg ctccctggagt ccgattactg 420
cactgcccaag ggctccgagg ccactgcacag agccaccatc tccccttggc cagggtactac 480
attaaacctt ctgaagtttc ctatttgcaa cccaactcct tacagaatgt ttaaaaggca 540
tcaaagactt aaaaaagatt caactcaagc tgaagaagat cttagttagc aagaacaaaa 600
tcagcttaat gtcctcaaaa agcatgggta tgcgttagga agagttggaa ggacattctt 660
gtattcagaa gaacagaagg ataacattcc ctttgagttt gatgctgatt caattgcctt 720

```

00227" 56E2960

```

tgacatggaa aatgaccctg ttatgggtac acacaaatcc accaaacaag tagaattgac 780
tgcacaagat gtgaaagatg cccactgggt ttatgacacc cctggaatta caaaagaaaa 840
ttgtatttta aatcttctaa cagaaaaaga agtaaattatt gttttgcaa cacagtccat 900
tgttccaaga acttttgtgc ttaaaccagg aatgggtctg tttttgggtg ctataggccg 960
catagatttc ctgcaggga atcagtcagc ttggtttaca gtcgtggctt ccaacatcct1020
ccctgtgcat atcacctcct tggacagggc agacgctctg tatcagaagc atgcagggtca1080
tacgtttact cagattccaa tgggtggaaa agaacgaatg ggcaggattt cctcctcttg1140
ttgctgaaga cattaatggg taaaagaaag gactgggggc aacctggaag cagtgggccc1200
acatcaaagt ttcctctgca ggtaatttta tgccaagcac tttttaaaaa gt 1252

```

<210> 74  
 <211> 695  
 <212> DNA  
 <213> homo sapiens

<400> 74

```

tgttcattgc ctctgagcg tagtccagtt actttcaggg tcggggagtg aaggcctcgt 60
tgagagaagg tctcattcgg tgttttggga agagagtcgt gtggggcccag gtatcgtagc120
ggcgacacga gagagacggg cgggtgtgaca gccttccact acctgcacga gtgtattgg180
ctgtctgcta tcagctatgc cgctgcccgt tgcgctgcag acccgcttgg ccaagagagg240
catcctcaaa catctggagc ctgaaccaga ggaagagatc attgccgagg actatgacga300
tgatcctgtg gactacgagg ccaccaggtt ggagggccta ccaccaagct ggtacaagg360
gttcgaccct tctgcgggc tcccttacta ctggaatgca gacacagacc ttgtatcctg420
gctctcccca catgaccca actccgtggg taccaaatcg gccaaagaagc tcagaagcag480
taatgcagat gctgaagaaa agttggaccg gagccatgac aagtcggaca ggggcatga540
caagtccgac cgcagccatg agaaactaga caggggccac gacaagtcag accggggcca600
cgacaagtct gacagggatc gagagcgtgg ctatgacaag tccaggaacg ggattcggga660
ccgcgggtat gaccaagcag accgggaaga gggcc 695

```

<210> 75  
 <211> 2514  
 <212> DNA  
 <213> homo sapiens

<400> 75

```

cggcgacggc gcgggggag ctgggaatcc ggaatgctgc ccgatggccc tgggtcctcg 60
ctgtggggca atccgggctt gcagacgagt ttagaaaaga gcgttttcgc tacgtaaagc 120
acattcgata aaggatatgg aaaatacttt gcagctgggt agaaatatca tacctcctct 180
gtcttccaca aagcaciaag ggcaagatgg aagaataggc gtagttggag gctgtcagga 240
gtacactgga gcccatatt ttgcagcaat cttagctctc aaagtgtgac agccccaatg 300
ctgttcatga ggtggagaag tggctgcccc ggctgcatgc tcttgctgta ggacctggct 360
tgggtagaga tgatgcgctt ctcaaaaatg tccagggcat tttggaagtg tcaaaggcca 420
gggacatccc tgttgtcatc gacgcgggtga gttgacttct ctctcctgg ctccggactcc 480
cggaaggcct gtgcagtgag cacggctcct tgttctgtgc aggatggcct gtggtaggtc 540
gctcagcagc cggccctcat ccatggctac cgggaaggctg tgctcactcc caaccacgtg 600
gagttcagca gactgtatga cgctgtgctc agaggcccta tggacagcga tgacagccat 660
ggatctgtgc taagactcag ccaagccctg ggcaacgtga cgggtggtcca gaaaggagag 720
cgcgacatcc tctccaacgg ccagcagggt cttgtgtgca gccaggaagg cagcagccgc 780
agggtgtggg ggcaagggga cctcctgtcg ggctccctgg gcgtcctggg aactggggcg 840
ctccttgctg gaccacagaa aacaaatggg tccagccctc tcttggtggc cgcgtttggc 900
gcctgtctc tcaccaggca gtgcaaccac caagccttcc agaagcacgg tcgctccacc 960
accacctcg acatgatcgc cgaggtgggg gccgccttca gcaagctctt tgaaacctga1020
gcccgcgcag accagaagta aacaggcacc ttggacgggg gagagcgtgt gtgtgatggg1080
aaaatccgga cccacgcgtg tgctgaaggc gtacgggtgt tgccagattt tcaacttgag1140
cataaattgg ttgccattga gaatttaaga atctggaata ttgcagcttt tggttaaact1200
taatgcattg ttggagatgt tatggcgaca ctaaacaaaag tattcctgaa ctttcttag1260
ctccttggtg gtaactggga agacagaaat gaagaaaatc acatgagaat gaagaattct1320
ttagcagctc aacagagttt ctccgcctgc tcccagatcg gcgaagtttc tacttggtac1380
tctctctgcc ggcgcccttc gttcctctc tgcttccctt ccctagtctt tctccggca1440
gggagctggg caggggtccc cgggtgtctc cctgagtcct gactgcactg actgggtcca1500
tcagagggct gcttcgttct ccagctcatc ttcttttaaa gtggtgacta gcttgggtgg1560

```

# SECRET

<400> 76

```
<210> 77
<211> 449
<212> DNA
<213> homo sapiens
```

|             |             |            |            |             |             |     |
|-------------|-------------|------------|------------|-------------|-------------|-----|
| cgggttttagc | ggcagctcct  | cgggattggt | tccattgcc  | ccctaaccgt  | gctggcctat  | 60  |
| gaacggtaca  | ttcgcggtggt | ccatgccaga | gtgatcaatt | tttcctgggc  | ctggaggggcc | 120 |
| attacctaca  | tctggctcta  | ctcactggcg | tgggcaggag | cacctctcct  | gggatggaac  | 180 |
| aggtacatcc  | tggacgtaca  | cggactaggg | tgcactgtgg | actggaaatc  | caaggatgcc  | 240 |
| aacgattcct  | cctttgtgct  | tttcttattt | cttggctgcc | tgggtggtgcc | cctgggtgtc  | 300 |
| atagcccatt  | gctatggcca  | tattctatat | ttccattcga | atgcttcggt  | ggtgtggaag  | 360 |
| atcttcagac  | aattcaagtg  | atcaagattt | taaaatatga | aaagaaactg  | gccaaaatgt  | 420 |
| gcttttaatg  | atattcacct  | tcctggtcg  |            |             |             | 449 |

<400> 78

<210> 79  
<211> 1329  
<212> DNA

<213> homo sapiens

<220>

<223> Beschreibung für Symbol "n": leer oder Lücke

<400> 79

```

ncccccatca gttcgaattt ctgcagttag agcatctggg gttattgtga ccaactgaaa 60
gtctcagaga gtaccacagt gctccagccc ttctctccca gcacccctga tggcttaatt 120
cacctagcag ccaggttcag ctccagaggtc ctcaacctgg tgatggagac cctgtgcatc 180
gtttgtacag tagaccccca attcacagca agcatggaaa gcaaaatctg ccccttcacc 240
atcgccattt tcctaaagta cagtaatgat cccgtcgtcg cctcactggc tcaggacatc 300
ttcaaggagc tgtcccagat tgaagcctgt cagggcccaa tgcaaatgag gctgattccc 360
actctggtca gcataatgca ggccccagca gacaagattc ctgcagggct ttgtgcgaca 420
ccattgatat cctgacaaca gtagtacgaa atacaaagcc tcccccttcc cagcttctca 480
tctgccaagc tttccctgct gtggcacagt gtacccttca cacagatgac aatgccatca 540
gtgcagaatg gcggagagt gctgcccccc tatgtgtcag tgaccctgga acaagtagcc 600
cagtggcatg atgagcaggg ccacaatgga ctgtggtatg tgatgcaagt ggtgagccag 660
ctcctggacc cccgcacctc agagtccact gcggcctttg tgggccgcct tgtttccacc 720
ctcatctcca aggcagggcg ggaactcggg gagaatctag accagattct tcgtgccatc 780
ctcagtaaga tgcagcaggg agagacgctc agtgtcatgc agtccctgat catggtgttc 840
gtcatctggg tgcacactca gctagaacct ctcttgaggt tctgtgttag cctcccagga 900
cctactggca aacctgctct agagtgtgtg atggctgagt ggacaagccg acagcacctg 960
ttctatggac agtatgaagg caaagtcagc tctgtggcac tctgtaagct gctccagcat 1020
ggcatcaatg cagatgaaca acggctacag gatatccgtg tgaagggaga ggagatctac 1080
agcatggatg agggcatccg caccgcctct aagtcagcca aaaaccaga acgctggaca 1140
aacattcctt tgctggtcaa gatcctaaag ctgatcatca acgagctctc caacgtcatg 1200
ggaggctaag gccgctccgc caggccactc ctgcagagtg ggagtcaaag gtgcacgaag 1260
gccccttact tcccaggaag acttttagcc tgggcagatc aagttacaaa ttgtcaaatt 1320
atccaggaaa 1329

```

<210> 80

<211> 805

<212> DNA

<213> homo sapiens

<400> 80

```

gcccccatca gttcgaattt ctgcagttag agcatctggg gttattgtga ccaactgaaa 60
gtctcagaga gtaccacagt gctccagccc ttctctccca gcacccctga tggcttaatt 120
cacctagcag ccaggttcag ctccagaggtc ctcaacctgg tgatggagac cctgtgcatc 180
gtttgtacag tagaccccca attcacagca agcatggaaa gcaaaatctg ccccttcacc 240
atcgccattt tcctaaagta cagtaatgat cccgtcgtcg cctcactggc tcaggacatc 300
ttcaaggagc tgtcccagat tgaagcctgt cagggcccaa tgcaaatgag gctgattccc 360
actctggtca gcataatgca ggccccagca gacaagattc ctgcagggct ttgtgcgaca 420
cccattgata tcctgacaac agtagtacga aatacaaagc ccccccttcc cagcttctca 480
atctgccaag ctttccctgc tgtggcacag tgtacccttc acacagatga caatgccacc 540
atgcagaatg gcggagagt gctgcccccc tatgtgtcag tgaccctgga acaagtagcc 600
cagtggcatg atgagcaggg ccacaatgga ctgtggtatg tgatgcaagt ggtgagccag 660
ctcctggacc cccgcacctc agagtccact gcggcctttg tgggccgcct ttgtttccac 720
cctcatctcc aaggcagggc gggaactcgg ggagaatcta gaccagattt cttcgtgcca 780
tccttcagtt aagatggcag gaggt 805

```

<210> 81

<211> 420

<212> DNA

<213> homo sapiens

<400> 81

```

accagggtcaa gctcacccca aactattacc ttogatgcat gtgttgtcat accctgtgga 60
gatctccaaa gtcaaaagca actgtcagac tcagagaagt atctgtgccc ctttaagata 120
aaaggctccc cctatcaaga cccttgctcc ttaacgaatg caggaaaaca ggtctgccat 180

```

agctggaatg aggtggtgtg gacaactgaa tatcaaggct ggacctcgtc aaccggtggt240  
 tgtatgtcct taaaaccata cattcacttc actaaagaaa gtacccccca taattgccag300  
 tataaccaat gtaatccagt gcaaatttct attctcattc caacttctac tgaccctaaa360  
 cctactttta gttgcggtat atggcatggg agccgaaata gcagggggcac atcttattgg420

<210> 82  
 <211> 2143  
 <212> DNA  
 <213> homo sapiens

<400> 82

cgggcgcctt tttttttttt ttttttaagt tgaacagaac attttatttc tcagcaattc 60  
 tatgcgtaca aattaaacat gagatgaata gagactttat tgagaaagca agagaaaatt 120  
 cctatcaacc ccaaggagga ctcaaagtga ggctggaaga ggacttagaa gtagtatgaaa 180  
 gtactctaag attttatcta agttgccttt tctgggtggg aaagtttaac cttagtgtact 240  
 aaggacatca catatgaaga atgtttaagt tggaggtggc aacgtgaatt gcaaacaggg 300  
 cctgtctcag tgactgtgtg cctgtagtcc cagctactcg ggagtctgtg tgaggccagg 360  
 ggtgccagcg caccagctag atgctctgta acttctaggc cccattttcc cctctgaaaa 420  
 taagaggggt ggatcaaacg atctctgggg ccttagcatc tcaaactctg tggatcctcc 480  
 taactacccc ttagagagcc ttactgggaa gtcagtcatt aatgatgtgg ccagttattt 540  
 gcaagtggta agagcctatt taccataaat aatactaaga accaactcaa gtcaaacttt 600  
 aatgccattg ttattgtgaa ttaggattaa gttagtaatt tcaaaattca cattaacttg 660  
 attttaaaat cagttttgtg agtcattttac cacaagctaa atgtgtacac tatgataaaa 720  
 acaaccattg tattcctgtt tttctaaaca gtcttaattt ctaacactgt atatatcctt 780  
 cgacatcaat gaactttgtt ttcttttact ccagtaataa agtaggcaca gatctgtcca 840  
 caacaaactt gccctctcat gccttgcttc tcaccatgct ctgctccagg tcagccccct 900  
 tttggcctgt ttgttttgtc aaaaaccta tctgtctctt gcttttcttg gtaatatata 960  
 tttaggggaag atgttgcttt gccacacac gaagcaaagt aaataaagac cacaaatggt1020  
 caaattctaa gccacttaat agcgttttgt acattaaaaa tgacaagggg tattatacaa1080  
 gtagcctttt aaaaaattct cacacagaac agctttgtat ttagacttaa agctgttgct1140  
 actttgtctag tgacgtttgt gttaacagtc agtgccttag gccattgatt gattgattgt1200  
 cagaatcaga agtgactaca caagagcatt agccagactt ttcagtgaga acaggtaaca1260  
 ggctggcacc agcacttggt acagcacgtg gacaggacga cggaaccag agttctctgt1320  
 ctctccttca cagcagatgg actcttctat aggtggctgt taatttacac aaagttatat1380  
 tccagaatca ggaagccccg tgcgccaac acttgaagga gaactatgtt ccagttttgg1440  
 tgttgaactt ctcacgaaat acctactacc aaaaattgtg acaccttatt agacacttcc1500  
 aaagtacccc ccaaaaagctg tttaaaagac cattccattt tttcctacac aaagtgcata1560  
 ctaaaaatttc acaataatca tcttcagatg tacattttat ttagtacatt tcacagtttt1620  
 cagtattcag tccctcatga acattttata gtcactctct cggccctgtt gtgaaatatg1680  
 tgattccagt tcaattcaga gtgtatgatt ccgcttttca cgctgatcaa gtaaatttat1740  
 ggtgtctctt ttctgatctt caacatttaa aadatctatg tttctgtcat tccctgccag1800  
 ggctgcttgc ttgtctgtct cagattctgc ttcattttca tccatgttgt agtcatcttc1860  
 tctctcagt ttctgtgtgt ttctcccttc cccggcagct tctgtctct cctcctgtcc1920  
 gtcggggatg acaagctggt ctgcctcagg gccctccatc tctggatttt cctggctcac1980  
 tgacagggca gcctgcacct gtggggtctg gccagttct cgggtctccc cgaagcctct2040  
 tccacctaca ggtctgtctt caacacctgc tcccggcctg gctcctgcgg cagcctgtcc2100  
 ctctgaggct ccgatcaaca ctgatctcat ggttcccttc cca 2143

<210> 83  
 <211> 450  
 <212> DNA  
 <213> homo sapiens

<400> 83

tttttttaaa gccagctttt ctccagattt ttttggtggg caggtcgtga aagacaggtg 60  
 aggaagtaga tcttgggctc agcatgcctc taaaagtata atttcttttt tttaatgtgg120  
 aaagaaatgc ataactctgt ttctgttctc gtccccctct ctgcctctgt ggtgcctgag180  
 atactgggga tcccacagct gggggcactc agaggctacc aggaacgctt ccagtttgca240  
 tctggctgtt agtgccagga ccagaaaacc acagacctct tcacagacct cctgaccgtg300  
 atgtccctga agcctggaag gtgtccacac aatgaagcag aattgagtga tgggggtgtt360  
 tgtggaaccc agtgaaactg tgttaacaca gtggaactgt gtttaattttg agtggaagtt420

004227 562960



caagttccgt ggagttcatt gggcccgttt

450

<210> 84  
<211> 408  
<212> DNA  
<213> homo sapiens

<400> 84

```
tgcaactgtg caccagctt gccagatttt tccccattac acccccagtg tggcatatcc 60
ttgggtcccca gaggcacacc cttgatctg tggacctcca ggcctggaca agagggtgct120
accagaaacc ccaggcccct gttactcaaa ttcacagcca gtgtggttgt gctgactcc180
tcgccagccc ctggaaccac atccacctgg ggaggggcct tctgaatgga gttctgacac240
cgcagagggc aggccatgcc cttatccgca ctgccagggt ctgtcggccc agcctggctc300
agaggaggaa ctcgaggagc tgtgtgaaca ggctgtgtga gatgttcagg gctagttcca360
accaagagtg tgctccagat gtgttggggc cctaacttgg cacagagt 408
```

<210> 85  
<211> 311  
<212> DNA  
<213> homo sapiens

<400> 85

```
tacagttttt atcagtgatc acatttttagt gtaatacatg aaactgaggc ttgatagaaa 60
acaggagaga aggcattgagt gcatggggta catagggaga tgagggcaag catcaccaag120
gagcggcagt gagatagacg ctctcatgga ctgctgcttt acaacctccc tggagagcaa180
tttaaaaaata tgaatcaaga tccttttgat ccactaatca tccagaaatc tacacagaaa240
tatgcacaaa aatatgtggg catccattga ctttccaacc tcttctcttt ccaggggggaa300
tattccttaa a 311
```

<210> 86  
<211> 487  
<212> DNA  
<213> homo sapiens

<400> 86

```
gtcttttgaa atctgtttcc actacagcta tgggtcaagtc tatcagccgg tgctaccagg 60
agtcactgcc agggctgccg ttctcctgaa cccagtggc cagaatcata agccctgacc120
ccatccctag aaagatgagg tcccagcaat ggccagagca tttctcacca gttctgtgag180
atagcacata aaaatagagt tctttgggca aaacttttgg gaagcaatgc atcctacatg240
ggctgatatt cagcctgagc tgttctcaag aggagagtgg tactggcagt ttatggctga300
aatccattct gattggttgg agtctatgct ataccagttg ttaaactttt tgagtatcac360
tcttgcatatc tgttactatt atatttcttc tatatataga cagaaaggcc attttttagga420
tattaaaggc tctgaaaatt tctgcagtag acccaactga aggttctatt aaggcagggt480
tcctaaa 487
```

<210> 87  
<211> 1902  
<212> DNA  
<213> homo sapiens

<400> 87

```
gaggaaaaag aacaatgaac agcaacgato ttgactgtgc aactcagaca ttctgcaga 60
aaagacatat gttgctttac aagaaggcca aagaactatg gggccttccc agcatttgac 120
tgttcattgc atagaatgaa ttaaataatcc agttacttga atgggtataa cgcattgaatg 180
tgtgatttta ttaggggcat ctgccaatc tctcactgtg gttccttctc tgactttgcc 240
tgttcatcat ctaaggaggc tagatccttc gctgacttca ccattcctca aacctgtaag 300
tttctcactt cttccaaatt ggctttggct ctttcttcaa cctttccatt caagagcaat 360
ctttgctaag gagtaagtga atgtgaagag taccaactac aacaattcta cagataatta 420
gtggattgtg ttgtttgttg agagtgaagg tttcttggca tctgggtgect gattaaggct 480
```

0967395-12200

```

tgagtattaa gttctcagca tatctctcta ttgtcttgac ttgagtttgc tgcattttct 540
atgtgctggt cgtgacttgg agaacttaaa gtaatcgagc tatgccaaact tggggtggta 600
acagagtact tcccaccaca gtgttgaaag ggagagcaaa gtcttatgga taaacctctc 660
tttcttttgg ggacacatgg ctctcacttg agaagctcac ctgtgctgaa tgtccacatg 720
gtcactaaac atgtttatct taaaccccc gtagcctga gttgaaaggg ctctctcta 780
ttaggttttc atgggaacat gaggcagcaa atctattgct aagactttac caggctcaaa 840
tcctctgagg ctgatagata tttgacttgg taagacttaa gtaaggctct ggctcccagg 900
ggcataagca acagtttctt gaatgtgcca tctgagaagg gagaccagg ttgtgagttt 960
tcctttgaac acattggtct tttctcaaag ttctgcctt gctagactgt tagctctttg1020
aggacagggg ctatgtctta tcaatcacta ttattttcct gttacctagc atgggacaag1080
tacacaacac atatttgtgt agtcttctaa aagactcctc tgattgggag accatatcta1140
taattgggat gtgaatcatt tcttcagtgg aataagagca caacggcaca accttcaagg1200
acataattac tactatgaac attttactgt gagactcttt attttgcctt ctacttgcgc1260
tgaaatgaaa ccaaaacagg ccgttggggt ccacaagtca atatatgttg gatgaggatt1320
ctgttgccct attgggaact gtgagactta tctggtatga gaagccagta ataaaccttt1380
gacctgtttt aaccaatgaa gattatgaat atgttaatat gatgtaaatt gctatttaag1440
tgtaaagcag ttctaagttt tagtatttgg gggattgggt tttattattt ttttctttt1500
tgaaaaatac tgagggatct tttgataaag ttagtaatgc atgttagatt ttagttttgc1560
aagcatgttg tttttcaaat atatcaagta tagaaaaagg taaaacagtt aagaaggaag1620
gcaattatat tattcttctg tagttaagca aacacttggt gagtgccctg tatgtgcacg1680
gcatggggcc atatgtgtga ggagcttgct taattatgta ggaagcaata gatctcggt1740
gttacgtatt gggcagatc ttactgtatg aatgaaagaa catcacagta atcacaatat1800
cagagctgag ttatccccag tgtagcttcg ttggggattc cagtttctgg gaacgagagt1860
tagggccatt ttatttaaaa gaaactcccg gttgagaccg gt 1902

```

<210> 88  
 <211> 1048  
 <212> DNA  
 <213> homo sapiens

<400> 88

```

ctcacccgtc tctacaccgt gttctacgcg ctgctcttcg tgttcaccta cgtgcagctc 60
tggctgggtg tgcgttaccg ccacaagcgg ctacagctacc agagcgtctt cctctttctc 120
tgcctcttct gggcctcccg gggaccgctc ctcttctcct tctacttcaa agacttcgtg 180
gcggccaaat cgctcagccc ctctgctctc tggctgctct actgcttccc tgtgtgcctg 240
cagtttttca ccctcacgct gatgaacttg tacttcacgc aggtgatttt caaagccaag 300
tcaaaatatt ctccagaatt actcaaatac cggttgcccc tctacctggc ctccctcttc 360
atcagccttg ttttctggtt ggtgaattta acctgtgctg tgctggtaaa gacgggaaat 420
tgggagagga aggttatcgt ctctgtgcga gtggccatta atgacacgct ctctgtgctg 480
tgtgccgtct ctctctccat ctgtctctac aaaatctcta agatgtcctt agccaacatt 540
tacttgaggt ccaagggctc ctccgtgtgt caagtgactg ccatcggtgt caccgtgata 600
ctgctttaca cctctcgggc ctgctacaac ctgttcatcc tgtcattttc tcagaacaag 660
agcgtccatt cctttgatta tgactgggtac aatgtatcag accaggcaga tttgaagaat 720
cagctgggag atgctggata cgtattattt ggagtggtgt tatttggttg ggaactctta 780
cctaccacct tagtcgttta tttcttccga gttagaaatc ctacaaagga ccttaccac 840
cctggaatgg tccccagcca tggattcagt cccagatct tatttctttg acaacctctg 900
aagatatgac agtgatgatg accttgctg gaacattgcc cctcagggac ttcagggaag 960
gttttgctcc agattactat gagttgggga caacaaacta acagcttcct ggcagaagca1020
gggacttttg aaagcctcaa agtttggga 1048

```

<210> 89  
 <211> 804  
 <212> DNA  
 <213> homo sapiens

<400> 89

```

gccccatca gttcgaattt ctgcagttag agcatctggg gttattgtga ccaactgaaa 60
gtctcagaga gtacccacgt gctccagccc ttcctcccca gcatccttga tggcttaatt120
cacctagcag ccagtttcag ctccagaggtc ctcaacctgg tgatggagac cctgtgcatc180
gtttgtacag tagaccccga attcacagca agcatggaaa gcaaaatctg ccccttcacc240
atcgccattt tccataaagta cagtaatgat cccgtcgtcg cctcactggc tcaggacatc300

```

ttcaaggagc tgtcccagat tgaagcctgt cagggcccaa tgcaaatgag gctgattccc360  
 actctgggtca gcataatgca ggccccagca gacaagattc ctgcagggtt ttgtgcgaca420  
 gccattgata tcctgacaac agtagtacga aatacaaagc ctcccccttc ccagcttctc480  
 atctgccaaag ctttccctgc tgtggcacag tgtacccttc acacagatga caatgccacc540  
 atgcagaatg gcggagagtg cttgcggggc tatgtgtcag tgaccctgga acaagtagcc600  
 cagtggcatg atgagcaggg ccacaatgga ctgtggtatg tgatgcaagt ggtgagccag660  
 ctccctggacc ccgcacctc agagttcact gcggcctttg tgggcgcctt tgtttccacc720  
 ctcatctcca aggcagggcg ggaactcggg gagaatctag accagatttc ttcgtgccat780  
 ccttcagtta agatggcagg aggt 804

<210> 90  
 <211> 581  
 <212> DNA  
 <213> homo sapiens

<400> 90

tctttgatca gatttagtgt cttaggtaat taaatcagaa agtctattta gctattctag 60  
 aagtgtatgt gtaggtattg ggtggttggg gttcctttgag cgaacttgct agaaactcca120  
 ttcttaacat cagaatcagg gcaggattga aaacattgtg gctggatctt gaaattgcta180  
 taacatctat tgcagaaaat gataggctcag atggatagca ataataatta tatatcagat240  
 cttagtaaca aaattaccaa gctttatcta gtggatatat gtaaaagaat atttttaaat300  
 gtccagcatt gatgtatttt ctttaagaat tattacagta tataagcatt ctttggaat360  
 acagtataaa aacataaatt ttttcgtatt tttaattttt tttatttttt tgggtcaagga420  
 tgaatcctcc cctgtaaaat attgattttc gcctaaattt cgggggtttcc ctggcacata480  
 atagcactgg ccccaacttc ggagatggcg gatgcgggta aaaagccaaa aggatggatg540  
 gggatccgga aatacgtggt ggaatggaag cgaatccaat a 581

<210> 91  
 <211> 2042  
 <212> DNA  
 <213> homo sapiens

<400> 91

tggagatatt agtcagtttc tttagtata tttgtttcct tgatgtgcct ttttgttttt 60  
 ctttgggggtt tttggaatcc ggatgctgtt gaagggcaat agcagactcc tccagctaag 120  
 agacaggaca tgttcttgag ccactgtagc tgttgaagct ggacaccaga cgctccctat 180  
 aacccccccg ccaggccata gcgtgtatgc atgtgcactt ccaccacag aggaggggtg 240  
 gaagccttga gaacctcaag aaagggctgg attctgcat acctttgggt ctaccttggg 300  
 actgctgggt gccaacgtgt caaccagcct gtgttccctg ccaccacgc acttgctgag 360  
 gtgtggctga ggcagaatca tgtgaatggg tgcattcaag gaggttcagg ccctgcttgg 420  
 agaagaaata ctttagcatc atgaaaggga aagaacgtgc accccttttt tgtttcttta 480  
 gtgaatgcaa gatttaataa aagtgaataa tgagcttccc ctttgggagt ggagcccagt 540  
 gcagctcact gacaggggtg acatcagtat gatgtgttgg actgaaactg tatgtctgta 600  
 ggtaggtgtg tgccttttag ggcagaccac ggtggccacc ccatttctcc aaggtgggtt 660  
 acctagcttg tgtatattag acattgccac cctcacctct ggccaaaaat tcttgattta 720  
 aaaagaaaag tctattttgt taacgacagg ctctgttgta tgtgttacta tcccaagcct 780  
 ggattatttt atttatttta aagtatttta atttccatat tggctttatt ctaatcccat 840  
 ccatccctgt ggagctgcag agcatcttca tgtgagtaga cggatggaca taaatagatt 900  
 catgctcatt taggaagctg ggagtttctg gaagctgagg gtgagttcct gtgattcttg 960  
 ttcgcttcaa caaaaagtgg gagaccaagt ttttatagca aaagaccaa ttagctgtag1020  
 agtcttgaat gcagaaaaaa attaccctag ctttcttagc acttaggggt ttgtgaggat1080  
 tcagtgttta gcacagtgt tggcacatag taagccctag taaatgttaa atattgttat1140  
 tagtgtttcg taaaacttga gaaatagagc tgagctcatt cccttccctg tgattcaaaa1200  
 ataataccta catgaaaaca tgattccaag ttgattgaat gttgtaggaa ttactggttt1260  
 agagtagccc agttctcggc ctaccctgct ggttgggatc ccaaggaaac aaggctgcaa gaatttatga1380  
 ctggtttgaa aatatgccag acttcagccc ccaaggaaac catactggac cttacccac1440  
 actccagctg gaaaaggtaa aggtgacctt tggctagcca cactactggac cttacccac1440  
 tgacgtcttt cagaacattc caagggtttt cctcaaggaa catttttgag ctagaaatta1500  
 aaatgggttc tctggcagac tgcacccctt gagtcaaagt taacagtatt cctttgaatg1560  
 caataataga ggcttttctg cgtaaaggga gaaggaatga ccaattgaac ttacacattc1620  
 cccaggcagg tccctttgac ggcccctaca ggctgggggtg gccctcctg tccctcaggga1680

tcagactccc agactgggta gttctgcatg tttccatcaa attaaagggtt attccctggc1740  
cgctcctcgg agaaaaccaa cccaccctg ccagctgggg gcaatggggc agggattttg1800  
gcctctcaga acagctccta gaggtgctc atgactgaat gttttcccaa atcacctaaa1860  
tatcggtttg ctttttgttt tgggggagag gatttagcct cttacttccc tgatggattc1920  
aaagttttat ctatctcctt atctcctgcc ctgtcttggc acaactctgg atagattgca1980  
gggtgtggaat ttgctggagt ttgggtggctc cccaaattcc ttgatctgtc cgcaaagaga2040  
ag 2042

<210> 92  
<211> 430  
<212> DNA  
<213> homo sapiens

<400> 92

gttaaaaacc tagtattcat tttttttttt cctgtaccaa aacaatcacc ttccttttatt 60  
tttctcggag cggaagagg agagtggaga agaagggaag aatgcaaagt gtcactttga120  
acttctcggt caccacacac gtgggagtc actcatgtca gcagcctccg tgcacaggcc180  
ccagggtgaaa gaaagaatga ggtctagttg gaccagctaa cactgcctgc cttgtgttta240  
cgaaaggcag ctgcctctgt ggtgtgattt caggggagcc agacagggcc gggggccacga300  
acctgcatcc tgcacacctaa gcacctattt gccatgcggg gaggcctaac ttgggaaact360  
tcaatttgct tggggtgcag attagctttc caaactattg tgatgctcat gcttgacttc420  
ccaaggactt 430

<210> 93  
<211> 592  
<212> DNA  
<213> homo sapiens

<400> 93

aattaaaata aatagaaaca tacggagatt cttttatggt ggatttatta taccctccac 60  
cattttgggt cctgaaaagg gaaaagatac acggtcgagt agtacaggta tgtgtttccc120  
actacacatt atggctataa tggagttgaa ttgcaaacag taaaattttg ttttggattg180  
gtttcccctg atccccccag acaggagctt cctctcccac cctacctgcc tgcctttaag240  
ttgtgtccta ttaaactgga cacaaatctc accggctttt agtctaataa ttgaatcata300  
gctacacacg gtgacaccag aatagctact tgttttttta tgttaccagt gagtaacttg360  
tttatccttg tatgtagaaa ctaatttcac catgatcaca gatctgtgta acatctctag420  
tttgaatttc cacacaattt taaaatgtct actaggaaaa cttacacctt tttgttccaa480  
gggtgctctt catctattaa aaccgtgggg gcatacttcc agtggtgctt ctgagggccca540  
aattttgtgg gtcgtggggg acaattttgt attaacatac gttattttgt aa 592

<210> 94  
<211> 674  
<212> DNA  
<213> homo sapiens

<400> 94

aaggccgcgc aagtgcactt gcgtgtcacc gttaccgtag cgactgggct tctggactgt 60  
atatcctagc tgccttgtca acatcttcca gcatcggcag ctccggaggc cggggtaact120  
ggcagcaggt aggaaactat gtgaaagaat ctctgatgt cataatttcc ggggtgcacc180  
ggaacatttg atcatcattc ctttggcaat tccagccttc tgtggaaagg ccagtagaaa240  
gcattgattt attcacctct acaggaatca gactcagcct cttttggttt tcagtgaagt300  
atgccttttc aatttggaac ccagccaagg aggtttccag tggaaggagg agattcttca360  
attgagctgg aacctgggct gagctccagt gctgcctgta atgggaagga gatgtcacca420  
accaggcaac tccggagggt ccctggaagt cattgcctga caataactga tgttcccgtc480  
actgtttatg caacaacgag aaagccacct gcacaaagca gcaaggaaat gcacacctaa540  
tagcaccatt aagtcttttg tcaaggctcg actaggtcaa gggtaatgga ccagtatcat600  
ctggatgatc ggtaaacaaa taaaagtggg ggcaccttta gatgatgaaa aaaaaaaaaa660  
aaaaaaaaaa aaaa 674

<210> 95

<211> 324  
<212> DNA  
<213> homo sapiens

<400> 95

```
gttctttttca ttccatcact ttaggtgatg ggtaagattt ttgaaagcct tatatTTTTT 60
gattttgttg tctagtTTAA tcctaccttt aatagttgtg tttggtaaaa tccccacttg120
aatgtgacac tgataataat tatgctgatt tttagcatct cttataggaa tcaaagttta180
ttaaagttac atagaggatt gaaaaatgta tatcactcaa tttttatcta aggaggggata240
gggtataaag ggaggtacct aaatagctca aataatggat ataatccttt tttccataac300
catttgggat gctttaaggc aatt                                     324
```

<210> 96  
<211> 709  
<212> DNA  
<213> homo sapiens

<400> 96

```
ggatgcggca ctataacatc cccgtcagag tgtgtgagga gaccagtcta tgagagacgc 60
atgctcctga cagcctggcg acgtggcgaa gatgcacagg tggctcctgg gcttgggctg120
caggtttggg ggtctctaag aacaatctct gagaagaacc cttgggcccc tgggagccaa180
gttggacagg atgtcctgaa gactagcttt tgataagaga aattaaccaa gtctttcccc240
tcatctatga tgcaatatat ttcagtgggg gccttcagag cacacctgtt ggacggtgca300
aaccatatct tctccagaag gcaaatactt ttgtatcaga ggaaactcag ttttggagag360
gaatatgttc tttatatctc aaatcaaaac tctctctaag ggtaaactgg cttctaattt420
ttttaagtac agtatttttt tttccccctt agtagtaacg ggtttctata gatcttccta480
tacagtctgc tttaaactcag gaccttgaga ttatgagact gacgtgctgc ccactgcact540
gagggggctt ctaacagtct gctttaagtg gtataattct gggatagatc tgttactggc600
atagtcatga caacctctgg taatcttacc ttctcctttt tatgaaggga agagcaatgg660
tttgagctta catctaaatt aaggctattt taagcagatt gttttgcaa 709
```

<210> 97  
<211> 562  
<212> DNA  
<213> homo sapiens

<400> 97

```
gtccagatgg aatgactccc atcctctcct catctcccct ttgacgagcc tcaaactgct 60
cagctcatca aagagccatt gccaaacttc gtatgtgggt ctgggtccca gggagccttg120
gaacctggca ccctgggggtg gtttaattcc ggcacgagag cattcctgct tctcaaggg180
cacagtggcc tgcatgggcc agcatggacc ctgggctgat catgtgcatt cctgcttctc240
tgggggacaca gtggggccac atggggccagc atggaccctg ggctagagca agcacatctc300
catctcttcc acctcaggca gtgtggctcc agatgtcagg agggactgac ctcaggacct360
tccaggttcc tctgtgccag gaatgagagg ccaggcccca tcctaccacc tcgccttgac420
cctgaagtca gagcaggcca gccaaagcagg aagcacactg ttttaatttt tgcattggaaa480
gtaaatgtgt actttgatag ggttaaaata tggctctttt taagttgctc aaccccataa540
tttgagccat tgccttgctt aa                                     562
```

<210> 98  
<211> 1948  
<212> DNA  
<213> homo sapiens

<400> 98

```
gatcaccaag acacacaaag tagaccttgg gctcccagag aagaaaaaga agaagaaagt 60
gggtcaaagaa ccagagactc gatactcagt tttaaacaat gatgattact ttgctgatgt 120
ttctccttta agagctacat cccctcttaa gagtgtggcc catgggcagg cacctgagat 180
gcctctagtg aagaaaaaga agaagaaaaa gaagggtgtc agcacccttt gcgaggagca 240
tgtagaacct gagaccacgc tgcctgctag acggacagag aagtcaccca gcctcaggaa 300
```

00222 "562700

```

gcaggtgttt  gccacttgg  agttcctcag  tgggggaaaag  aaaaataaga  agtcacctct  360
agccatgtcc  catgcctctg  ggggtgaaaac  ctccccagac  cctagacagg  gtgaggagga  420
aaccagagtt  ggcaagaagc  tcaaaaaaca  caagaaggaa  aaaaaggggg  cccaggaccc  480
cacagccttc  tcggtccagg  acccttggtt  ctgtgaggcc  agggaggcca  gggatgttgg  540
ggacacttgc  tcagtgggga  agaaggatga  ggaacaggca  gccttggggc  agaaacggaa  600
gcggaagagc  cccagagaac  acaatgggaa  ggtgaagaag  aaaaaaaaaa  tccaccagga  660
gggagatgcc  ctcccaggcc  actccaagcc  ctccagggtc  atggagagca  gccctaggaa  720
aggaagttaa  aagaagccag  tcaaagttga  ggctccggaa  tacatcccca  taagtgatga  780
ccctaaggcc  tccgcaaaga  aaaagatgaa  gtccaaaaag  aaggtagagc  agccagtcac  840
cgaggagcca  gctctgaaaa  ggaagaaaaa  gaaggagaga  gagagtgggg  tagcaggaga  900
cccttggaag  gaggaacacg  acacggactt  agaggtggtg  ttggaaaaaa  aaggcaacat  960
ggatgaggcg  cacatagacc  aggtgaggcg  aaaggccttg  caagaagaga  tcgatcgcgaa  1020
gtcaggcaaa  acggaagcct  ctgaaaccag  gaagtggacg  ggaaccagc  ttggccagtg  1080
ggatactgct  ggttttgaga  acgaggacca  aaaactgaaa  tttctcagac  ttatgggtgg  1140
cttcaaaaac  ctgtcccctt  cgttcagccg  ccccgccagc  acgattgcaa  ggcccaacat  1200
ggccctcggc  aagaaggcgg  ctgacagcct  gcagcagaat  ctgcagcggg  actacgaccg  1260
ggccatgagc  tggaaagtaca  gccggggagc  cggcctcggc  ttctccaccg  ccccaacaa  1320
gatcttttac  attgacagga  acgcttccaa  gtcagtcaag  ctggaagatt  aaactctaga  1380
gttttgtccc  ccaaaaactg  ccacaattgc  tttgattatt  ccatttatgc  tggagattac  1440
aaattttttt  tgtgaaaaaa  tcagatcttg  gtgaggacct  cgagcagtaa  gatataaata  1500
actcccataa  gcttagcggt  ccagtaatgg  aacactaggc  ataaatgggt  tattcagttg  1560
tgcaaatgaa  agccatctga  cagttggctc  acattgaaca  cctgtggaga  ttaaggacga  1620
ggacaactat  attgatgggc  ttggatgaac  tggggcaggg  cagctcatat  ttctggagcc  1680
aggagaacga  gtgagtgcta  aaacctcctg  ttttctgtgt  taaacattcc  gtccctgttt  1740
gagacatcag  tatgtacagt  taacttttgt  tgagtgttta  gcaggtacta  gggacatact  1800
agtgttttcc  ttaatgtatt  taatcttcac  aattatgaaa  tgggtgctat  tattagcccc  1860
atcttataga  tgaggcaact  gaggttcagg  gataaagtaa  taaaattgcc  tggggtcacc  1920
cagccactaa  aaaaaaaaaa  aaaaaaaaaa

```

1948

<210> 99  
 <211> 483  
 <212> DNA  
 <213> homo sapiens

<400> 99

```

aatttatggg  gtctatcttt  gaccacgtga  taccacttac  ctgattctat  gtactgatta  60
atgtatctaa  cagttttata  gtgaaagtac  tttttaaaaa  agtatttgaa  tggtcatttc  120
tatttttccc  cctttgctgt  acaagttaat  ttttactcat  cttttgctgt  acaaattaac  180
tttcatcaat  acaaaataaga  ggctagtttt  aagtcaattt  atttgtcatg  agcccaggaa  240
caattaaatt  ctataaagta  atgtattaaa  atagtacact  ttaaaaaatta  ttttccttct  300
ttttttctct  ttaaatttta  agaccatcat  aataaattat  cattacaaag  tcaaacatac  360
tatatactac  tatcagtcaa  tgggggaaaa  ataagtccat  atgttttatg  ggtaaaatgc  420
tgtaatatag  tgggattgtc  caatttgcc  tgaaaaaaat  cacagcagtt  tttaggtttc  480
cct

```

483

<210> 100  
 <211> 437  
 <212> DNA  
 <213> homo sapiens

<400> 100

```

cccgtttgag  gcgtaggggg  tggcgctctc  cgttcggcgg  cgctcccatg  gcgcacatta  60
ccattaacca  gtacctgcag  caggtgtacg  aagccatcga  cagcagagat  ggagcatctt  120
gtgcagagtt  ggtgtctttt  aaacatcctc  atgttgcaaa  cccacgactt  caaatggcct  180
ctccagagga  gaagtgtcaa  caagtcttgg  aacccctta  tgatgaaatg  tttgcagctc  240
atttaagggtg  cacttatgca  gtggggaatc  atgacttcat  agaggcatac  aagtgccaga  300
ccgtgatagt  ccaatcattc  ttgcgagcat  tccaggccca  caaagaagaa  aactgggctc  360
tgctgtcatg  tatgcagtag  cgcttgacct  ttcgagtgtt  tgccaataat  gcagttcaac  420
cagttggtta  aggaagg

```

437

<210> 101

<211> 359  
<212> DNA  
<213> homo sapiens

<400> 101

```
cagatctagg ggcttcagct gtgtgcagac cccatgccac ttcaggggaag tgacacaggc 60
ctgtgtcatc tcgctttggc agcaggtggg tggccttctt cagggggagga ggtggcctga120
gatgtgtttc aggtctttga cccatcactc cctacacaca cgacgtgaac accactcctg180
gagcattctc agaatggaga tttgaattcc atgtggcagc ttctcacaca caaacctgcc240
atcattcccc acacaccacac tcacgacatt caacagccat gagccaaaag aagttccttg300
tttcagattt gaaggtttta tgaatccact tcttcaggat gtagctcttt aatgatttt 359
```

<210> 102  
<211> 501  
<212> DNA  
<213> homo sapiens

<400> 102

```
tcggcgctcac atcctgagtc ggcctctctc cgaggcggag cggacatgca ggctccccgc 60
ggcaccctag tcttcgccct ggtgatcgcg ctcgctcccg tcggccggga accttctagc120
caaggatctc agagtgcctt acagacatat gagctgggaa gtgaaaacgt gaaagtccct180
atttttgagg aagatacacc ctctgttatg gaaattgaaa tgggaagagc tgataaatgg240
atgaacagca tgaatagaaa tgccgacttt gaatgtttac ctaccttgaa ggaagagaag300
gaatcaaata acaacccaag tgacagtga tccctaaacct gaatggcgct catgttttcc360
aagagaagca gcccttgagg gagtctgctg aggctgccaa cagaggatga agaggataga420
aatttaatta atttcaaata aacatagaca caagaacctt ttgctgtttc ttccaacgcc480
cactcttctt aatgatggca t                                     501
```

<210> 103  
<211> 1102  
<212> DNA  
<213> homo sapiens

<400> 103

```
cgggatctcc cgaaggaatt tacggggatt cctcggacca ttatcctcag gcaagaaaca 60
aaaccaaact tggactctcg tgcagaaaat gtageccatt accacatgta gccttggaga 120
cccaggcaag gacaagtaca cgtgtactca cagagggaga gaaagatgtg tacaaggat 180
atgtataaat attctattta gtcacctga tatgaggagc cagtgttgca tgatgaaaag 240
atggatatgat tctacatatg taccattgtt ctgtgtgtt ttgtactttc ttttcaggtc 300
atttacaatt gggagatttc agaaacattc ctttcacat catttagaaa tggtttgcct 360
taatggagac aatagcagat cctgtagtat ttccagtaga catggccttt taatctaagg 420
gcttaagact gattagtctt agcatttact gtatgtggag gatggagatg ctatgatgga 480
agcataccca ggggtggcctt tagcacagta tcagtacat ttatttgtct gccgctttta 540
aaaaataccc attggctatg ccacttgaaa acaatttgag aagttttttt gaagtttttc 600
tactaaaaat atggggcaat tgtagcctt acatgttgtg tagacttact ttaagtttgc 660
acccttgaaa tgtgtcatat caatttctgg attcataata gcaagattag caaaggataa 720
atgccgaagt cacttcattc tggacacagt tggatcaata ctgattaagt agaaaatcca 780
agcttttgctt gagaactttt gtaacgtgga gagtaaaaag tatcggtttt attctttgct 840
gatgtccttt ctgcttgaaa taacagtcac catacagcta aaggagagga gtttctttcc 900
ttctaagtag gcagaaatgg tatcattatg ttgccgctct ccaatctccc agagctcgct 960
ctctagagaa tcaccttctt tcgcgttttt tttttttttt gagggtagga gtctcactat1020
gttgcccca gactaggcct gggaactgtt ggggggcca ggggattgct cccgtcccgc1080
aggcctcccc agtaggcgg ga                                     1102
```

<210> 104  
<211> 306  
<212> DNA  
<213> homo sapiens

<400> 104

00673395.122700

gaccaacctt ccttgccatt tatacggcat aaaacccctca atctcaccag tatggctacc 60  
 aaaattatag gttcacctga aacaaagtgg attgatgcaa cttctggaat ttacaactca120  
 gaaaaatctt caaatctatc tgtaacaact gatttctccg aaagccttca gagttcta180  
 attgaatcca aagaaatcaa tggaattcat gatgaaagca atgcttttga atcaaaagca240  
 tcttgaatcc attttttttg aaaaacctta aaaagggcga tcacaatttt tttgaacaag300  
 ggtcat 306

<210> 105  
 <211> 2042  
 <212> DNA  
 <213> homo sapiens

<400> 105

tggagatatt agtcagtttc tttagtata tttgtttcct tgatgtgcct ttttgttttt 60  
 ctttgggggtt tttggaatcc ggatgctggt gaagggcaat agcagactcc tccagctaag 120  
 agacaggaca tgttcttgag ccactgtagc tgttgaagct ggacaccaga cgctccctat 180  
 aacccccccg ccaggccata gcgtgtatgc atgtgcactt ccaccacag aggaggggtgt 240  
 gaagccttga gaacctcaag aaagggctgg attctgccat acctttgggt ctaccttggg 300  
 actgctgggtt gccaacgtgt caaccagcct gtgttccctg ccaccacgc acttgctgag 360  
 gtgtggctga ggagaatca tgtgaatggg tgcattccaag gagttcaggg ccttgccttg 420  
 agaagaaata ctttagcatc atgaaagggg aagaacgtgc accccttttt tgtttcttta 480  
 gtgaatgcaa gatttaataa aagtgaataa tgagcttccc ctttgggagt ggagccag 540  
 gcagctcact gacaggggtg acatcagtat gatgtgttgg actgaaactg tatgtctgta 600  
 ggtaggtgtg tgccttttag ggcagaccac ggtggccacc ccatttctcc aaggtgggtt 660  
 acctagcttg tgtatattag acattgccac cctcacctct ggccaaaaat tcttgattta 720  
 aaaagaaaag tctattttgt taacgacagg ctctgttcta tgtgttacta tcccaagcct 780  
 ggattatttt atttatttaa aagtatttta atttccatat tggctttatt ctaatcccat 840  
 ccatccctgt ggagctgcag agcatcttca tgtgagtaga cggatggaca taaatagatt 900  
 catgctcatt taggaagctg ggagtttcgt gaagctgagg gtgagttcct gtgattcttg 960  
 ttcgcttcaa caaaaagtgg gagaccaagt ttttatagca aaagaccaa ttagctgtag1020  
 agtcttgaat gcagaaaaaa attaccctag ctttcttagc acttaggggt ttgtgaggat1080  
 tcagtgttta gcacagtgt tggcacatag taagccctag taaatgttaa atattgttat1140  
 tagtgtttcg taaaacttga gaaatagagc tgagctcatt cccttccctgt tgattcaaaa1200  
 ataataccta catgaaaaca tgattccaag ttgattgaat gttgtaggaa ttactggttt1260  
 agagtagccc agttctcggc ctaccctgct ggttgggata ttactgtatt cttgaatgca1320  
 ctggtttgaa aatatgccag acttcagccc ccaaggaaac aaggctgcaa gaatttatga1380  
 actccagctg gaaaaggtaa aggtgacctt tggctagcca catactggac cttacccac1440  
 tgacgtcttt cagaacattc caagggtttt gagtcaaagt taacagtatt cctttgaatg1560  
 aaatgggttc tctggcagac tgcacccctt gagtcaaagt ccaattgaac ttacacattc1620  
 caataataga ggcttttctg cgtaagggga gaaggaatga ccaattgaac ttacacattc1620  
 cccaggcagg tccctttgcc ggccctaca ggctgggggtg gcccctcctg tccctcaggga1680  
 tcagactccc agactgggta gttctgcatg tttccatcaa attaaagggt attccctggc1740  
 cgctctcctg agaaaaccaa ccccaccctg ccagctgggg gcaatggggc aggggatttg1800  
 gcctctcaga acagctccta gaggtgctc atgactgaat gttttcccaa atcacctaaa1860  
 tatcggtttg ctttttgggt tgggggagag gatttagcct cttacttccc tgatggattc1920  
 aaagttttat ctatctcctt atctcctgcc ctgtcttggc acaactctgg atagattgca1980  
 ggtgtggaat ttgctggagt ttgggtggct cccaaattcc ttgatctgtc cgcaaagaga2040  
 ag 2042

<210> 106  
 <211> 320  
 <212> DNA  
 <213> homo sapiens

<400> 106

aatcttttta ccatgaaatt tcttccagaa ttttccccct ttgacacaaa ttccatgcat 60  
 gtttcaacct tcgagactca gccaaatgtc atttctgtaa aatcttccct gactcttcca120  
 agcagtaatt tgccttctcc tagagtttac ctgccatttt gtgcacattt gattacagt180  
 agcatgttat tttacaattg tgactctcct gggagtctgg gagccatata aagtgggtcaa240  
 tagtgtttgc tgccttgaga gttgaatgac attttctctc tgttttggta ttactgtaga300

00227 562960



tttcgatcat tcttttggtta

320

<210> 107

<211> 506

<212> DNA

<213> homo sapiens

<400> 107

gtcgaacagc aaagccaaga cttgttaaaa aggtttgaag aggaaggacc ataacaattg 60  
aaaggggggaa attataagat acagtaaatt cctcttcaaa gatttagcct gttgacttcc120  
ttattctttg ttctcaaaact cgacttcctt gttgtccatg cctccttgte cctagttact180  
gtgaacaacc ttcccaccag ttctaataca taactcacat ctgctccctt ggttaccac240  
tctgcaccca ttcttcccac tgaaactgca cttcccacca ctgtaactca catccccctt300  
cccttcctta tttggaaaag tattcacaaa tagccaatcg ggtcaactta gaatgagcgg360  
tccaacccca gcccctgggg gagtgcaca gaggtaggga ctgtgttagg gataaaaacc420  
ttttcctttc tttgttcagt gtgctgctgt gatcatgatt gatgcaggca gcagcctttt480  
tgcagaagta aattgccttg ctgagg 506

<210> 108

<211> 1276

<212> DNA

<213> homo sapiens

<400> 108

gcgcgccggc cgcctgcccc ggcagaggggt cggggcggaag ggggaagctac gtccccggagg 60  
tgccggtgtg ggcaccgggc ggggcccggc gaaccggcgc cccacggagc tgctgctgtc 120  
agaccaacc cgggccccca tcatcactgc gccgcgcttt caggcgccga gaactaccgt 180  
tcccggcatg ccatgaaatt ggccctggcg ctgaggcggg gtccggccct ccaccgctc 240  
ccgcccggcg cgaatcgcg tgccgagcca tggaggagga ggcacgtcc ccggggcttg 300  
gctgcagcaa gccgcacct gagaagctga ccctgggcat caccgcatc ctagaatctt 360  
ccccaggtgt gactgaggtg accatcatag aaaagcctcc tgctgaacgt catatgattt 420  
cttcctggga acaaaagaat aactgtgtga tgccgaaga tgtgaagaac ttttacctga 480  
tgaccaatgg cttccacatg acatggagtg tgaagctgga tgagcacatc attccactgg 540  
gaagcatggc aattaacagc atctcaaaac tgactcagct caccagctt tccatgtatt 600  
cacttctctaa tgcacccact ctggcagacc tggaggacga tacacatgaa gccagtgatg 660  
atcagccaga gaagcctcac tttgactctc gcagtgtgat atttgagctg gattcatgca 720  
atggcagtg gaaagtttgc cttgtctaca aaagtgggaa accagcatta gcagaagaca 780  
ctgagatctg gttcctggac agagcgttat actggcattt tctcacagac acctttactg 840  
cctattaccg cctgctcatc accacctgg gctggcccca gtggcaatat gccttcacca 900  
gctatggcat tagccacag gccaaagcaat gggttcagcat gtataaacct atcacctaca 960  
acacaaacct gctcacagaa gagaccgact cctttgtgaa taagctagat cccagcaaag1020  
tgtttaagag caagaacaag atcgtaatcc caaaaaagaa agggcctgtg cagcctgcag1080  
gtggccagaa agggccctca ggaccctccg gtccctccac ttcctccact tctaaatcct1140  
cctctggctc tggggaaacc ccaccggga agttgaggca cccttccttc caatttgctt1200  
aaccagtttc caggagtggg gtgggttttt ccgtggcaca ggttgggggc ttaggggggg1260  
ttgacgttc cathtt 1276

<210> 109

<211> 373

<212> DNA

<213> homo sapiens

<400> 109

aaatacattt atgtttcttg aaatgtgtta agtggccttt gtcaaggtgt ttataataga 60  
agagtatata aaaatgaatt tctctagaga tgcagcatal tctaaagatc catcattaga120  
taattaaaaa tatgttaagt atgctaactt tcccatatat aaatggagaa cattaactct180  
cctactgttt agttataaaa taccaaatth tgtaattatc ctatctggaa ttacactata240  
ctgcaaaaaa gccagttact tcacttttaa atttgacaat gtatgtgatg aattataaaa300  
tttaatatgcc tacatctttt cctccttgta tccaaatthc tccggacett aatgcttaaa360  
ccttttggtt acc 373

004227 5662960

<210> 110  
 <211> 492  
 <212> DNA  
 <213> homo sapiens

<400> 110

```
gtcttttgaa atctgtttcc actacagcta tggcgaagtc tatcagccgg tgctaccagg 60
agtcactgcc agggctgccc ttctcctgaa cccagtgagg cagaatcata agccctgacc120
ccatccctag aaagatgagg tcccagcaat ggccagagca tttctcacca gttctgtgag180
atagcacata aaaatagagt tctttgggca aaacttttgg gaagcaatgc atcctacatg240
ggctgatatt cagcctgagc tgttctcaag aggagagtgg tactggcagt ttatggctga300
aatccattct gattgggttg agtctatgct ataccagttg ttaaacattt tgagtatcac360
tcttgcatat tggtactatt atatttcttc tatatataga cagaaaggcc attttaggaa420
tatttaaagg gctcttgaaa attttctggc attagaccca actgaaggtt ctattaaggc480
agggttcccta aa                                     492
```

<210> 111  
 <211> 1678  
 <212> DNA  
 <213> homo sapiens

<400> 111

```
gcctcagcag actccttggg cggtagcagg gagatggtgc aacggcccca gcctgcacag 60
gaaccgagca ggcctggatc tgccaacccat agacacggga tatgattccc agccccagga 120
tgtcctgggg atcaggcagc tggaaaggcc cctgcccctc acctccgtgt gttacccccca 180
ggacctcccc agacctctca ggtccaggga gttccctcag tttgaacctc agagggtatcc 240
agcatgtgca cagatgctgc ctcccaatct ttcccccacat gctccatgga actatcatta 300
ccattgtcct ggaagtccc atcaccaggt gccatattggc catgactacc ctcgagcagc 360
ctaccagcaa gtgatccagc cggctctgcc tgggcagccc ctgcctggag ccagtgtgag 420
aggcctgcac cctgtgcaga aggttatcct gaattatccc agccctggg accaagaaga 480
gaggcccgca cagagagact gtccttttcc ggggcttcca aggcaccagg accagccaca 540
tcaccagcca cctaatagag ctggtgctcc tggggagtcc ttggagtgcc ctgcagagct 600
gagaccacag gttccccagc ctccgtcccc agctgctgtg cctagacccc ctagcaacccc 660
tccagccaga ggaactctaa aaacaagcaa tttgccagaa gaattgcgga aagtctttat 720
cacttattcg atggacacag ctatggaggt ggtgaaattc gtgaactttt tgttggtaaa 780
tggcttccaa actgcaattg acatatttga ggatagaatc cgaggcattg atatcattaa 840
atggatggag cgctacctta gggataagac cgtgatgata atcgtagcaa tcagcccca 900
atacaaacag gacgtggaag gcgctgagtc gcagctggac gaggatgagc atggcttaca 960
tactaagtac attcatcgaa tgatgcagat tgagttcata aaacaaggaa gcatgaattt1020
cagattcatc cctgtgctct tcccaaatgc taagaaggag catgtgccc cctggcttcal1080
gaacactcat gtctacagct ggcccaagaa taaaaaaac atcctgctgc ggctgctgag1140
agaggaagag tatgtggctc ctccacgggg gcctctgccc acccttcagg tggttccctt1200
gtgacaccgt tcatccccag atcactgagg ccaggccatg tttggggcct tgttctgacal1260
gcattctggc tgaggctggt cggtagcact cctggtggt ttttttctgt tctccccgal1320
gaagccctct ggcccccagg aaacctgttg tgcagagctc ttccccggag acctccacac1380
accctggctt tgaagtggag tctgtgactg ctctgcattc tctgctttta aaaaaaccat1440
tgcagtgcc agtgtcccat atgttccctc tgacagtttg atgtgtccat tctgggcctc1500
tcagtgtcta gcaagtatag aatgtaaggg atgtggcagc aaatggaaat gactacaaac1560
actctcctat caatcacttc aggtacttt tatgagttag ccagatgctt gtgtatcctc1620
agaccaaact gattcatgta caaataataa aatgtttact cttttgtaaa aaaaaaaa 1678
```

<210> 112  
 <211> 866  
 <212> DNA  
 <213> homo sapiens

<400> 112

```
gtcgccatga ctgccaagga ctgctccatc atgattgcac tgtctccctg tctgcaggat 60
gccagctctg atcaaaggcc tgtggctcct tcatcgaggt ccagggttgc cttttccgtg120
```

```

tctgtgctgg accttgacct caagccctac gagagcattc cccatcagta taaactggac180
ggcaagatcg tcaactatta ttcaaagact gtacgtgcc aagacaacgc cgtgatgtcg240
actcggttca aggaaagcga agattgcaca ttagttctcc acaaggctca actctttccc300
tgcagtgtct ttgaaacttg aacataatgt gaaggctgaa tgatagagat attttctgtt360
gtgttgggtg accttttggt gtgaatgttt ttgcttttaa ccccttttga ggtgggattg420
cctcttggag acatggaatt gaagagcact agaaacaact tcctggacaa ggaatgtagg480
aagtgaagtgc tgtgtcccag gaagctgctc acactcttaa aatggaagtg tccgttaagc540
cctgggaaga cgttctggat agttcttctt tcccaaccag ggctcatgtc tgattctcta600
atgcgaaaag ccttattcta agaccaagg tttggatctg ctaccaccag actcctaaca660
tagaaaactt gaattgtcac atacatttta cagtttggac ttttaagaaa acatggatac720
tactgggaac ttccccagc tgagttacat gggcactttt tcagtgcagg ccacatatca780
acacagggtt ttaagggtgg tgacctggctg cacacgtgaa ccccgaggcc cccagatgc840
cgattctgag ccagtgtaga cccagg
866

```

<210> 113  
 <211> 1434  
 <212> DNA  
 <213> homo sapiens

<400> 113

```

gcgcggccgg cgcctgcccc ggcagaggggt cggggcggaag gggaagctac gtccccggagg 60
tgccgtgtgg ggcaccgggc ggggcccgcg gaaccggcgc cccacggagc tgctgctgtc 120
agaccaaccc cgggccccca tcatcactgc gccgcgcttt caggcgccga gaactaccgt 180
tcccggcatg ccatgaaatt ggccctcgcg ctgaggcggt gtccggccct ccaccgctc 240
cgcgcgcg cgaatcgcg tgcgagcca tggaggagga ggcacgtctc ccggggctgg 300
gtgagcga ggcgcacct gagaagctga ccctgggcat cacgcgcac ctagaatctt 360
ccccagggtg gactgaggtg accatcatag aaaagcctcc tgctgaacgt catatgattt 420
cttcctggga acaaaagaat aactgtgtga tgctgaaga tgtgaagaac ttttacctga 480
tgaccaatgg ctccacatg acatggagtg tgaagctgga tgagcacatc attccactgg 540
gaagcatggc aattaacagc atctcaaac tgactcagct caccagctc tccatgtatt 600
cacttcctaa tgcaccact ctggcagacc tggaggacga tacacatgaa gccagtgtg 660
atcagccaga gaagcctcac tttgactctc gcagtgtgat atttgagctg gattcatgca 720
atggcagtg gaaagtttgc cttgtctaca aaagtggaa accagcatta gcagaagaca 780
ctgagatctg gttcctggac agagcggtat actggcattt tctcacagac accttactg 840
cctattaccg cctgctcatc acccacctgg gctgccccca gtggcaatat gccttcacca 900
gctatggcat tagccacag gccaaagcaat gggtcagcat gtataaacct atcacctaca 960
acacaaacct gctcacagaa gagaccgact cctttgtgaa taagctagat cccagcaaag1020
tgtttaagag caagaacaag atcgtaatcc caaaaaagaa agggcctgtg cagcctgcag1080
gtggccagaa agggccctca ggaccctccg gtccctccac tccctccact tctaaatcct1140
cctctggctc tggaaacccc acccggaagt gagcaccct cccctccact ccctaccagc1200
tccagagtgg tggtttccat gcacagatgg ccdtaggggt gacctccagt tttgcgtgtg1260
gaccgtaggc ctctttctag ttgaatgacc aaaattgtaa ggcttttagt cccaccgaca1320
ttagccaggc tcgtagttag gcctccagag cagggtgtgc tgtccctgc ctctggaagc1380
aatggggaat gtggaatcaa gacaatgccc aaaaaatttt taatgcagct ggctc 1434

```

<210> 114  
 <211> 914  
 <212> DNA  
 <213> homo sapiens

<400> 114

```

ttggcagcgg ggagagggaa agaggaggaa atggggtttg aggaccatgg cttacctttc 60
ctgcctttga cccatcacac cccatttccct cctctttccc tctccccgct gccaaaaaaa120
aaaaaaaaag aaacgtttat catgaatcaa cagggtttca gtccttatca aagagagatg180
tggaaaagac taaagaaacc accctttggt cccaactcca ctttaccat attttatgca240
acacaaacac tgccttttg ggtccctttc ttacagatgg acctcttgag aagaattatc300
gtattccag tttttagccc tcaggttacc aagataaata tatgtatata taacctttat360
tattgctata tcttttggtg taatacatc aggtggtgct ggggtgattta ttataatctg420
aacctaggta tacccttttg tcttcacag tcatgttgag gtgggctccc tgggtatggt480
aaaagccagg tataatgtaa cttcacccca gcctttgtac taagctcttg atagtggata540
tactctttta agtttagccc caatataggg taatggaaat ttcttgccct ctgggttccc600

```

catttttact attaagaaga ccagtataa ttttaataatg ccaccaactc tggcttagtt660  
 aagttagagt gtgaactgtg tggcaagaga gcctcacacc tcactaggtg cagagagccc720  
 aggccttatg ttaaaatcat gcacttgaaa agcaaaccctt aatctgcaaa gacagcagca780  
 agcattatac ggtcatcttg aatgatccct ttgaaatttt ttttttggtt gggttggttt840  
 aaaatcaagc ctgagggtgg gtggaaacag gtagcctaca caccaccaat tgggggtggt900  
 cccgggggaa tggt 914

<210> 115  
 <211> 685  
 <212> DNA  
 <213> homo sapiens

<400> 115

gaaaatccag ggggtgaagaa tagatctgtg gtggcagggg tgggaaaggc ggggaggatt 60  
 tgcctactga ggggcagcac aagagaattt tgcggggcga tggatctgtc tgtatcttga120  
 ccatagtgat gatacatgac tgtgcatttg tcagaactca caggactgaa tgaaaagaga180  
 agtgaatttt actgcatgtg aattgttaaa ataaatgcta gacagtattt taaaaatcaa240  
 gccagatcc tgcaagacat tatggctccc caccagaagg ggagagacgg ggaaagagaa300  
 gtgtcccaa agttaacca cgttccctgg gacccacctc cctccccact gccacttccc360  
 accagcctca cgcacggggc aggccttcc ctttgcagct cacagcccag cagatgttag420  
 gtcagaatgc gtccctcac ttgactaaag gtttacagcc agcaggggtg gaaatgaacc480  
 agatattaac acccctcct ccattgacctg cccaccttct gggccagtac cagtgaaggc540  
 aggaagcca ttctccacc cccaggctgt tcccaaagcc ctggaagaac ccaaggaaag600  
 gcaggagcca agttgggagt tgaccttgat gaccaggggc cagttggccc agtttccctt660  
 gtttagttgg ggggagggaa ccctt 685

<210> 116  
 <211> 2646  
 <212> DNA  
 <213> homo sapiens

<400> 116

ttaatttaat agctttcatg tgattaaaaa tagctaacta gactcaagga ttcacaatat 60  
 ttaggtgtat tttcaatacc tccagaaagg aaacctcagt taatcagagg aaatagtttc 120  
 agtcttcatt tgagcatgtc tttccatctc aaaaaaatac tcttagtagg ttggagtga 180  
 gatagcaagg ttttgaagca tatttgcct aatccacagt gacacttttt atcttccagg 240  
 agcactccta ggaggttccg tgcctaatac atgttgactg ctttgcagat ctcaagggaa 300  
 taaaatgaca aaagcagggg aagttacaga ttcaaacagc attttaactc atgttgatct 360  
 ggataattaa tcttttctaa agatgtgtag tttcttggaa aacagtgata tcacatgatt 420  
 aaaattacat ttttatcaac ataattgtct ggaaaagata agccctcaa ttttctacca 480  
 gttgactttt attcattaga tacagaaggt gcagtattac acatcaccag ctgcctttgt 540  
 gaatggctca ctacacagcc attgggggtac aactgtgtgc atgggcagaa acagcaagtg 600  
 ccctcattgt ggtcattggg tggggagtgc cttttgtcaa ggagtctgca ggaattggct 660  
 tatttctgta tgccaaagtg atcaacacac caaagtctct gccataaaga atgtggcttc 720  
 cttgcatcct ccattcctgtt actctggggc cagtaatttg atgtaactgt ctgattgtac 780  
 tagagacagg agtataccca gcttattcat aatcaagtaa agagactcag attagatttg 840  
 attttttagc ctctcttaga gccaatcagg cagttaagag taataaagga aaagggtttg 900  
 gtcacaaacc ctaccattat ctggagatta cttctgctg cactcctgtc ttgccatgca 960  
 cgtcttgcgc cctcactttt gctcagccta gcagtctact tcaactttatt gccttgtaag1020  
 tgtcaggcct cctgggcgct ctggaaaaga caggagacca ggccctctca cccctactgg1080  
 taacagggtca ttgctgggtg cacaagaggg aggtgatttg catcatggtc atgctgcatg1140  
 ggcttcactg ggatgctgtt aaacaccaga ggagccaacc tatcagaatc ccagcagcaal200  
 aggaaaactc agatttttaga ggctttttac aataaagtag cgtaactcta ggtcatgatt1260  
 gatttcaaatt gcctgccatg aatgatttgt aagtaattat gtaggatcca tcaagcagt1320  
 attgtaggct tttgaattgt cccagtggat ccgggacccc atttctactgt ctctcttgat1380  
 cgtgttaatg atgcaatcag agttcaagac aggccccatg aagtctgact gcactgggat1440  
 ggagaaatga atttcttccc actgaaggaa actctttctc attcgcagcc aagacgggag1500  
 tgccactgtt cctctcttca ctctgagat actgcttctg gaagcgggtg tcacttccctc1560  
 tctagtacct cttctcttct ctgaagtgtg tgactatctc ctagtgttta aatttggcag1620  
 ttactcgcca tgtatgtcag catagaaaag gaaatgtttt taccttatct cctgtatgta1680  
 tgatagaact taaaagaaat gtgcatttgt tttcatagcc ccagcagaga aaatcctctt1740

|             |             |             |             |             |            |      |
|-------------|-------------|-------------|-------------|-------------|------------|------|
| catagattaa  | atgtgctgct  | gtggacagga  | gggaaaaaaa  | aaccctctac  | atattgaaag | 1800 |
| gcaccaaag   | taatatctga  | cactgttaag  | atgccccaaa  | gagcaaagtt  | gtagtggaga | 1860 |
| tgcaggggtca | tttccccatg  | ccatccacag  | tgtttggttag | tgagtccacg  | gctgacttgc | 1920 |
| agtataaaag  | aaaagcatgg  | agctgtgtct  | gcagacaatg  | gtggctgcat  | ctgtaagtgg | 1980 |
| cttcagaggc  | agcagccctg  | gggaaattga  | tgggtgtggc  | agtggacctg  | tgaagaggga | 2040 |
| gaatctagcc  | ttcagcctgt  | ccagtgttaa  | ccactagaga  | aactgagctt  | tatatccttt | 2100 |
| tttaaatgct  | gtgaatttta  | gcataattgaa | acattagagc  | aaataactcag | gggatttttc | 2160 |
| attaaacatc  | cctcagataa  | tttagctata  | tatcattaga  | aagggaaagc  | tatcattttt | 2220 |
| attttaaaaac | taaacaaggc  | catctttataa | actgtcacca  | aagtcttccc  | ttttttattg | 2280 |
| catgtgtgcc  | ttgaattttca | taaaacatta  | attcaccaatg | ggggtcagaa  | tgtactcttg | 2340 |
| ttgaaacact  | tcttgtagca  | ttttatgttc  | atattatgtt  | tgagagggtg  | aaaatgtatg | 2400 |
| agcagcttaa  | ctgaagtaga  | actattcatg  | atgcttttca  | cacattgtgg  | cataagatgt | 2460 |
| aaagtttgta  | attaatgtta  | atctctgtgc  | attttaatat  | tcttttataa  | ttattaatgt | 2520 |
| taatttctgt  | gcatttttat  | attcttttat  | aattatgagc  | attttaataa  | attcattttt | 2580 |
| acaaacaata  | aaaaaaaaaa  | aaaaaaagga  | ggaagggaaa  | aggaagaagg  | aggggggaag | 2640 |
| aggaag      |             |             |             |             |            | 2646 |

<210> 117  
 <211> 2667  
 <212> DNA  
 <213> homo sapiens

<400> 117

|             |             |             |             |            |            |      |
|-------------|-------------|-------------|-------------|------------|------------|------|
| ttatcttgga  | agtctgtgta  | tcaaaatgaa  | gaattcagat  | ggtaggaggt | tctatagtc  | 60   |
| ttttaaaagct | gactcttgag  | tgctcagttga | atatccatta  | aattggattt | ggaaataacc | 120  |
| tgaggaaaagt | attatgaatt  | cgatctgcac  | agatgcctct  | tagctgatag | gtggcaggcc | 180  |
| tgtgggtttg  | ggttctccct  | cttttctctg  | gaacatatga  | caattccaga | ttaaagaaaa | 240  |
| atgtttttta  | ataaataccc  | ttggtctttc  | ttctagtcac  | ctttgaggta | gatattgtga | 300  |
| ttttctggag  | tatagtatat  | ccgtgtctct  | gtgtcttagg  | tttactagat | gcaataatac | 360  |
| tctcttttga  | catttgtagt  | gaagtgattt  | gatattaaat  | aaaacagtta | atgtttgaat | 420  |
| ataggcatat  | ttatagggtt  | tttccgctcc  | cccccaacc   | acccttttta | aaaaatctat | 480  |
| acaaagccct  | tgtttgagtc  | tcatcatgca  | catcaaatca  | tggagttagg | tcttctctga | 540  |
| gctcagggga  | acacaagtgc  | acagagagag  | atgtcttgag  | ggtcactacc | aaagaattac | 600  |
| cctcattgtc  | cctcactcag  | gccatgtgta  | catgcgatgc  | tgctgagtgt | gctgggggtg | 660  |
| gtgggtggcca | cgtggctccc  | ccagagcact  | tcctaactgg  | caagctggga | gaccattac  | 720  |
| tggtgaactt  | tggtgaaatt  | agaactgtat  | cttttacata  | atcttggcat | attacatttc | 780  |
| ataataaaaa  | catacattta  | gttgcatgct  | acatcactat  | tgattttata | attaattttc | 840  |
| taagcttcaa  | ccatgtttta  | taccttattt  | cgttacatca  | tatatttgta | atgtgtaata | 900  |
| tgaaattctt  | tgcttttaag  | tcttttttta  | aaatgtagaa  | tgttctaaac | ttgaaaggca | 960  |
| attgaatgta  | gtatgatgaa  | aatgtgaatg  | ttttgctgct  | ttcatgacca | aagatacagg | 1020 |
| gctagtggac  | atttagaata  | ataattaaag  | ctagagctct  | gtatgtcttt | tctttgaagg | 1080 |
| agttctaacc  | ttgtaaattg  | agaatgactt  | cagagaattt  | tgattaagaa | aacattaaaa | 1140 |
| tcttaaccgg  | cacaaacact  | ccaatttttt  | tactgtgtaa  | gccgcaagca | attttttttc | 1200 |
| tttttctttc  | aaaagcctgc  | cttctgaatt  | tatttcttgt  | ttactcattt | cagagagggt | 1260 |
| agtaaagaag  | atctattttc  | ggtagtcata  | tcgcttgaaa  | ggtattggta | aatgtgtttt | 1320 |
| cagtcgtgac  | catgtggaaa  | gtgaacagtg  | ttggcaaaca  | ttaccgagaa | aatcatgctt | 1380 |
| ttcaagatgc  | ccttgctttg  | ggatatcctt  | cctaggggaga | aaaaaaaaaa | gtagtttaac | 1440 |
| aattgtgaat  | tccattttct  | atttcagttt  | ctgtgcagtc  | aatgggttcc | caccactatt | 1500 |
| aattcccagc  | atttatgttc  | tgttgtattc  | tccccttagc  | ccagtaacat | ttttatctaa | 1560 |
| taccccatcc  | cccaagtttt  | gagacagatt  | gacccctac   | tcattatgtg | gctctagttg | 1620 |
| aatttttaaaa | tggtgaatat  | tgggcttgca  | ggcagtagga  | gctgcaaata | tggtagagtg | 1680 |
| ggagtgtgga  | gttaatgggt  | agtatgttaa  | taaagggaaa  | ctgtctctga | cagaatctca | 1740 |
| gtaatgttta  | ccaaaacatg  | tctttctaca  | gctggttaga  | taaatgatgc | taccctgtag | 1800 |
| ctcagctaca  | ggctgcagtg  | caaacttttc  | ttccatccag  | agaaagcaga | attccctcct | 1860 |
| agtaacctca  | ttacaaatac  | tgttactaga  | agggcatgtg  | ctgtctgtca | ccttcagtaa | 1920 |
| tatttgtgcc  | atctcttgat  | gactgatgac  | ctggatcgag  | tatttctatg | aagggtcttc | 1980 |
| ttagggccct  | tacatacgca  | agaggggtgc  | tctagtcca   | tagctgtagt | tcacaggaag | 2040 |
| gacaccagga  | gaagtataac  | ctagggctac  | tgagcagctc  | atcatccctg | tttctgcaca | 2100 |
| gtttcctgaa  | actggccatc  | agggcctctg  | aggcactcaa  | atcagtttac | ttttagcatg | 2160 |
| cccccatcag  | gggtgggtctc | actgttagtg  | aggatacggg  | tctgggttga | tgtttttcta | 2220 |
| ggcaaaatgc  | ttaagtgttc  | tggttatgcc  | attcattcat  | acgatgtgtg | aaatttgctt | 2280 |
| aaaaggggaat | tttcatgatt  | tgatttagat  | tagtatattaa | atatctgctt | tagatagcaa | 2340 |

00727 "56E2960

```

ttaattttat tgtaaaaata aggaaaaata tgtgaatatg tgaatttttt aagcctgaga2400
gatgatagaa tgttcccata tttttcttgt aaagaaaata atatttttaac ttacacatcc2460
tgtagaaaat accacctttt ccccttgat tacagtacaa tgtttacatt actatactgt2520
caagctgaaa gtataaaaaa tgtacatata cattttgagt tatgtatcct ttttttaaaa2580
aaaggtgctg ggctgtggca ctgggctgga catgactaaa gttgacagag gctatgctag2640
atttataatc actagttctg ggacttg

```

2667

<210> 118  
 <211> 544  
 <212> DNA  
 <213> homo sapiens

<400> 118

```

catctgtgca tggatgagtg gccgactttg gagcccaggc tgttacttcc tggctctggtg 60
gtgaatcctc catagtctga gagtaagatc cttgatactg gctcagcatg gaacatctgg120
cacacagtat gcactgagga aatacttggt ggaataatca gtgaatcata gatgaaaact180
taaccttgga attaattatg agactgctca gaggaagaga atgggagaca aaggacctgg240
tgattagacc cccaagacac tgggctgtct gcttgtgtct cgggtggaac aggcccagcg300
agagtcttta gggccagaac tcaaggaatt tattgagcca tggcaaacag gcagtaaaaca360
gcccatcttg gctgtgtat tgagaagaga atgtggtgga cagatataga agcatggaaa420
cctgataggg ctattgcaat cactcagaaa agaggcgatg gcagcttgga cctgttgaag480
cagtagagtg ctttccaggg aggagaaagg acctgaagggt taatttgatc accatggggcc540
atga

```

544

<210> 119  
 <211> 1340  
 <212> DNA  
 <213> homo sapiens

<400> 119

```

gtttgatact ttctgcact taggtttgtc ctattcttca tttattcaga ctaggataga 60
aaatttttga atcagaaaat agatccagtg tttagctaca tacaatctag tacaagtga 120
tttttattct taaacatagg tgtgttggct ctttttttaa aagatgcgct ctacctgaa 180
aggaaatttg attttagaac tggatgtggg gcagtgaagt attttaggcc caggtctgtg 240
tacacatttt atagaagaaa tgaagtactc tgaagtattt tgggtgcctt ttcatttcaa 300
ctgtgttttg aatttgtcag atcacacata tattgtgtta ttgggcgctg tgggtatctt 360
tataaaacct cttgcttggt tgcaaaagtt cctaaaagga aacacaagta atgcctatcc 420
attactagca tgctatgctg catgctttac tgccattgct gtatgcttta ctgtctttgt 480
aaaaatcccc ctctcccctt ttctggtaac tggaaaagca tgctaaaaat agtcttatat 540
tttcaccca taagtgcaga atcagtaatt ccttggctta aagctcttat ataataata 600
ttattggtgg taaataccaa gtttggatc tcatagctat ctttttttaa agaaattaag 660
ttcttgaaaa tttagccaaa tcccgtttta tgggaatgct ctttagaatt cattttgttc 720
agcccccttg ttctatgggt gagaaatctg aggccttacg aaggttaaga gaactttccc 780
cgtgtctcac aggtaggtag aggcagagct ggaactagat atctggtctg ttgactctag 840
ctcagtgtct tctggttaact gttgaaaatt gtcttagttt gagagatggc tgaaataatg 900
aacataaaat gctatttata ataacaagta tatgtgaaat ttcttattgt aagactacta 960
ccggcttact gttgaatagt ttgggtatag tgtttaggct agaaatgcct cccacattgg1020
taataaacat taaaaaatac aatgtatttt taggtaggca ttttataaaa tgcattatgc1080
catggttgct tttgagatag attgtagtct gggtagcatc tttaaaatgt atgtgggctt1140
aactgttggt catatcagga gatgctctga ttgtataggt gagactctgt ttctgttatt1200
tttaattgct gtatgaaatg tgatcagatt attttactac caacagttat agtttgaaag1260
tccaactgta ttaattgact gataatatga taatatagag attaaattgt ttgtcttcat1320
tccttaaaaa aaaaaaaaaa

```

1340

<210> 120  
 <211> 2376  
 <212> DNA  
 <213> homo sapiens

<400> 120

002227 56E2960

```

ggatatgaat aaattgttaa tataaagtcc tacagaaatt aatttatgaa atttctctaa 60
atcacacaaa acttaaatac agatgactac taccctgaga ctgaaaaata tgttctaatt 120
tatagtgcata tttttgggca gttttgggtg cagaatacct atcaacacat tcttttttta 180
ttaggaaaaaa aaggatgtct acataacaat ttgtaaaagt ataaaaatcca ttagttttta 240
agtcttctga tagcattggc tattataaga aacaagtatt tgctctcggt tttaacggga 300
taataatgct atgtctacat aaaatgattt ctaccacctt aaatagctca ctgtagaaat 360
tcatgtataa atggaaccat atagtacata catatcatat tcttaggtct ggcaaataat 420
tgagggttcat ccatatttta tattcactca tcagtagttg taaacacatt cttaaagtag 480
catttttcaga tatgaataag cagggatgaa ataagtatta gggtaaggga aatgggttag 540
gcttttcctaa gtgaagtgtg aaaaccacag ctttcttttt aatgggatgt ctaatatgca 600
tttatctggt caagcatttt aagatttcca tgaaaatgtc ctgaaaaatc aagattcttc 660
attgaggggtg aggatctccc aatgggagac tgctctgaaa agagcatgtg ctttttgaat 720
tagataaacct actataatca tggatgttct tgaatactta gcaaacatata cagcatccca 780
aagtcaccaa gataaacctt cctactccaa catcacatga tcttctaatt ctacctgtaa 840
aaataagcat aacaattaat tagaatataa ttacgttata tacattactc cacctagaaa 900
aaaaaatagt tcattatgta gagaaatgct ttttttagta catagagaaa taaaaaatac 960
agatactcac tagtgaacaa aaaatgtcca aagccagcca caacagatcc taatgaacca1020
tacaatattg aatgccgggc gcaggagta ttttcaacat ctaaaaatcc taggagctta1080
agggactaga atgaaaaaaa agaacctaga ttgagtaaga aagtatttca ttttgggggtg1140
ctttggcaaaa aatgacaata caccatttct tttctttagt ttgaggggtt aaactagagt1200
atgtgccacg tgacaaccta aatcagcttg cgttgtcttt gtccaccttt ggtatgcagt1260
ctgaatcttt aaatccgaaa accttacaaa ttggaccgga aaacctttaa gcagtaggg1320
aacttggagc tgtatcttaa tttgctaata aactgacttg gaaataggat aattcatttt1380
atgagctctt taaatgagtt tatttgggaa tatgcctatc attggaattg aaagcagcat1440
agcttgcttc agtaactcca ataatttggg aagcagaaat ggaaaaagta atttgagtca1500
tgtttgctta tgtagtgcg tttaaaattc ccctagtaat tacctttcat attttattaal1560
ctaggttaac atcaactgtg gttgtaagag taaatgtttc accttaagat aaacatgggc1620
aatatattaa actctagtct gttttcttgc ctgtgaagtg aggctgcact tgattatatt1680
tgattctttg ttcgtaatac atgggaacga cagctaagtg tggtgaaaaa cgcggggatc1740
caaagagctg gatttttatc tcagatctgc cgctaacttt tgtatcctat aggctacttt1800
tatttctatg gtctcaatct ataacatgaa tgggttgggt taaatgactg aagttccttc1860
aagtgtcaaaa attctttttc tacagtcttc attggattta tgtatttctt attcctaata1920
tgtttaactg ggatgtctgt cactctaggg cggcaagaca gacattttaa agtaacagtc1980
acactgctga actggcattt ctgttaacac aaaagttag aaaactcacg gtaactgtta2040
cttgatttaa gtgtatataa aattttcagt aaggctgctt ttaaaaggaa ccactgtcca2100
tttaaagggt tcatagttaa cttcaatggg ttagtattgt ttggggcagg acattaaact2160
agaagggatt ctataggatg aggtgatacc tagaaggtaa tatattgtaa ggcaaaagag2220
attagaagaa atggggggaa aggatagtaa aaggcaagtc agattaaagg gttgaaacat2280
gaagatatcc ccattgtatt ccggcccat gtttgcctt tttggctcca gcacgtgtt2340
tggaagaggc caatgtgccc tgggtcccta ataaag
2376

```

<210> 121

<211> 225

<212> DNA

<213> homo sapiens

<400> 121

```

cagttgtgaa gttttgtaaa atgggtcacc aacttaaaac taggaaatta cgaagaagag 60
aaaattgccc ggtatctggt aaggctctgc tgtagatctg ctgtagggt tgtcaccatt120
ggaagcaagg tcctacttca gtggcagatc ttgtggcctt tgagtggctg aagaccacca180
ccctgcacag ggctggggcc atgcacaggc atccttcctt acctt
225

```

<210> 122

<211> 1967

<212> DNA

<213> homo sapiens

<400> 122

```

acgggcggcg cccgcgctcg caggccactc tctgctgtcg cccgtcccgc gcgctcctcc 60
gacccgctcc gctccgctcc gctcggcccc gcgcccggcg tcaacatgat ccgctgcggc 120
ctggcctgcg agcgctgccc ctggatcctg cccctgctcc tactcagcg catcgcttc 180

```

|             |            |             |             |             |             |      |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| gacatcatcg  | cgctggccgg | ccgcggtctg  | ttgcagtcta  | gcgaccacgg  | ccagacgtcc  | 240  |
| tcgctgtggt  | ggaaatgctc | ccaagagggc  | ggcggcagcg  | ggtcctacga  | ggagggctgt  | 300  |
| cagagcctca  | tggagtacgc | gtggggtaga  | gcagcggctg  | ccatgctctt  | ctgtggcttc  | 360  |
| atcatcctgg  | tgatctgttt | catcctctcc  | ttcttcgccc  | tctgtggacc  | ccagatgctt  | 420  |
| gtcttctctga | gagtgattgg | aggtctcctt  | gccttggctg  | ctgtgttcca  | gatcatctcc  | 480  |
| ctggtaattt  | accccgtaga | gtacaccag   | accttcaccc  | ttcatgccaa  | ccgtgctgtc  | 540  |
| acttacatct  | ataactgggc | ctacggcttt  | gggtgggcag  | ccacgattat  | cctgatcggc  | 600  |
| tgtgccttct  | tcttctgctg | cctccccaac  | tacgaagatg  | accttctggg  | caatgccaa   | 660  |
| cccagggtact | tctacacatc | tgcctaactt  | gggaatgaat  | gtgggagaaa  | atcgctgctg  | 720  |
| ctgagatgga  | ctccagaaga | agaaactggt  | tctccaggcg  | actttgaacc  | catttttttg  | 780  |
| cagtgttcat  | attattaaac | tagtcaaaaa  | tgctaaaata  | atttgggaga  | aaatattttt  | 840  |
| taagtagtgt  | tatagttttc | tgtttatctt  | ttattatggt  | ttgtgaagtt  | gtgtcttttc  | 900  |
| actaattacc  | tatactatgc | caatatttcc  | ttatatctat  | ccataacatt  | tatactacat  | 960  |
| ttgtaagaga  | atatgcacgt | gaaacttaac  | actttataag  | gtaaaaatga  | ggtttccaag  | 1020 |
| atttaataat  | ctgatcaagt | tcttgttatt  | tccaaataga  | atggactcgg  | tctgttaagg  | 1080 |
| gctaaggaga  | agaggaagat | aagggttaaaa | gttggttaatg | accaaacatt  | ctaaaagaaa  | 1140 |
| tgcaaaaaaa  | aagtttatct | tcaagccttc  | gaactattta  | aggaaagcaa  | aatcattttc  | 1200 |
| taaatagcata | tcatttgtga | gaatttctca  | ttaatatcct  | gaatcattca  | ttttagctaa  | 1260 |
| ggcttcatgt  | tgactcgata | tgtcatctag  | gaaagtacta  | tttcatggtc  | caaacctggt  | 1320 |
| gccatagttg  | gtaaggcttt | cctttaagtg  | tgaaatattt  | agatgaaatt  | ttctctttta  | 1380 |
| aagttcttta  | tagggttagg | gtgtgggaaa  | atgctatatt  | aataaatctg  | tagtggtttg  | 1440 |
| tgtttatatg  | ttcagaacca | gagtagactg  | gattgaaaga  | tggactgggt  | ctaatttatc  | 1500 |
| atgactgata  | gatctgggta | agttgtgtag  | taaagcatta  | ggagggtcat  | tcttgtcacac | 1560 |
| aaagtgccac  | taaaacagcc | tcaggagaat  | aaatgacttg  | cttttctaaa  | tctcagggtt  | 1620 |
| atctgggctc  | tatcatatag | acaggcttct  | gatagtttgc  | aactgtaagc  | agaaacctac  | 1680 |
| atatagttaa  | aatcctggtc | tttcttggtg  | aacagatttt  | aatgtctga   | tataaaacat  | 1740 |
| gccacaggag  | aattcgggga | tttgagtttc  | tctgaatagc  | atatatatga  | tgcatcggat  | 1800 |
| aggtcattat  | gattttttac | catttcgact  | tacataatga  | aaaccaattc  | attttaaata  | 1860 |
| tcagattatt  | attttgtaag | ttgtggaaaa  | agctaattgt  | agtttttcatt | atgaagtttt  | 1920 |
| cccaataaac  | caggtattct | aaacttgaaa  | aaaaaaaaag  | tcgacgc     |             | 1967 |

<210> 123  
 <211> 612  
 <212> DNA  
 <213> homo sapiens

<400> 123

|            |            |             |            |            |            |     |
|------------|------------|-------------|------------|------------|------------|-----|
| cctagctgtc | cccctgagat | gaagaaagag  | ctccctgttg | acagctgcct | gccccgctca | 60  |
| ctcgagcttc | accctcagaa | gatggatccc  | aagagacagc | acattcagct | cctgagcagc | 120 |
| ctgactgagt | gcctgacggt | ggacccccctc | agtgccagcg | tctggaggca | gctgtaccct | 180 |
| aagcacctgt | cacagtccag | ccttctgctg  | gagcaattgc | tcagctcctg | ggagcagatt | 240 |
| cccaagaagg | tacagaagtc | tttgcaagaa  | accattcagt | ccctcaagct | taccaaccag | 300 |
| gagctgctga | ggaagggtag | cagtaacaac  | caggatgtcg | tcacctgtga | catggcctgc | 360 |
| aagggcctgt | tgacgaggt  | tcagggtcct  | cggtgcct   | ggacgcggct | cctcctgttg | 420 |
| ctgctggctc | tcgctgtagg | cttctgtgct  | catgacctcc | ggtcacacag | ctccttcag  | 480 |
| gcctccctta | ctggccgggt | gcttcgatca  | tctggcttct | tacctgctag | ccaacaagcg | 540 |
| tgttccaagt | ttactcctac | agtctgcaag  | gttacagggt | ggttggggga | gaaatgccgt | 600 |
| tttgggggtc | ca         |             |            |            |            | 612 |

<210> 124  
 <211> 1183  
 <212> DNA  
 <213> homo sapiens

<400> 124

|            |            |            |            |            |            |     |
|------------|------------|------------|------------|------------|------------|-----|
| tttcggcaca | gcatgaatgg | ctgcgagaag | gacagctcgt | ccacagattc | tgctaacgaa | 60  |
| aaaccagccc | ttatccctcg | tgagaaaaag | atctcgatac | ttgaggaacc | ttcaaaggca | 120 |
| cttcgtgggg | tcacaggccc | aaatattgag | aaatcagtga | aggatttgca | acgctgcacc | 180 |
| gtttctctaa | ctagatatcg | cgtcatgatt | aaggaagaag | tggatagttc | cgtgaagaag | 240 |
| atcaaagctg | cctttgctga | attacacaac | tgcatcattg | acaaagaagt | ttcattaatg | 300 |
| gcagaaatgg | ataaagttaa | agaagaagcc | atggaaatcc | tgactgctcg | tcagaagaaa | 360 |



```

gcagaagaac taaagagact cactgacctt gccagtcaga tggcagagat gcagctggcc 420
gaactcaggg cagaaattaa gcactttgtc agcgagcgta aatatgacga ggagctcggg 480
aaagctgccc ggttttcctg tgacatcgaa cagctgaagg cccaaatcat gctctgcgga 540
gaaattacac atccaaagaa caactattcc tcaagaactc cctgcagctc cctgctgcct 600
ctgctgaatg cgcacgcagc aacctctggg aaacagagta acttttcccg aaaatcatcc 660
actcacaata agccctctga aggcaaagcg gcaaacccca aaatgggtgag cagtctcccc 720
agcaccgccc acccctctca ccagaccatg ccggccaaca agcagaatgg atcttctaac 780
caaagacgga gatttaatcc acagtatcat aacaacaggc taaatgggccc tgccaagtcg 840
cagggcagtg ggaatgaagc cgagccactg ggaaagggca acagccgcca cgaacacaga 900
agacagccgc acaacggctt ccggcccaaa aacaaaggcg gtgccaaaaa tcaagaggct 960
tccttgggga tgaagacccc cgaggccccg gccattctg aaaagccccg gcgaaggcag1020
gcagctgca ggacacctg ggaggcccg gggcctttcc ggggttagtt ttcggttagg1080
ggttttcaca gttgcatttt tttgccccca cggaggatta ggaagttttt ccacagatgg1140
caggcatttt ttttgagttc cccggttttt gacgttttgg ttg 1183

```

<210> 125  
 <211> 891  
 <212> DNA  
 <213> homo sapiens

<400> 125

```

cggaggcagc ggaaagccga gccaggcgcc tgcgcgctgg gaagagtagg ttcagagtgc 60
attccggaac ccggggcgcg gcgactgcg caggcgggcg gactccgctc agtttccgg120
gcggcgaaca ccaaagtcgg ggaacttaag cattttcggg ttctaggggt gttacgaagc180
tgcaggagcg agatggaggt ggacgcaccg ggtgttgatg gtcgagatgg tctccgggag240
cggcgagggt ttagcgaggg agggaggcag aacttcgatg tgaggcctca gtctggggca300
aatgggcttc ccaaacactc ctactgggtg gacctctggc ttttcatact tttcgatgtg360
gtgggtgttc tctttgtgta ttttttgcca tgactgttgc gctgatatct aaattaagaa420
gttggttctt gagtgaattc tgaaaatggc taaaacttc ttgaataaag aagacaggac480
tctcaataga agaatttcac atctccaagg gaccttcct ttcattttac actttgttac540
taatttgtag aactctatta attgggtagg atttcaccca ttcctagcta agttcttaaa600
attaaaccct ttgggtcgtg tttaaaaact ttcaaaccat tgatggcttt acaggggctg660
aatataaaaag catttgtact taaaggctct gtgtattcat taagaaatat agtaatgtct720
tttaaatgtt taagagttga tcaggggttt actatggatt gcaagtaata gggatgatta780
ataaggggaa ggtttttatg gaatttcaa agtcaattta tttcaaaagc gggggaaagg840
gttttgagag gagggggggc caaggtgttc ctgggggttg ccgaggggagg c 891

```

<210> 126  
 <211> 482  
 <212> DNA  
 <213> homo sapiens

<400> 126

```

tctctaaata gtaccttttc agtcttgccc cagaagttcc ctcaatttca gcagcaccga 60
gcggtttata attcattcag ttttccaggc caggcagccc gctatccttg gatggccttt120
ccacgcaata gcatcatgca cttgaaccac acagcaaacc ccacctcaaa tagtaatttc180
ttggacttga atctcccgcc acagcacaac acaggctctg gagggatccc tgtagcaggg240
gaagaagagg tgaaggtttc gacctgcca ctgtcaacct cttccattc attacaacaa300
ggacagcagc ctacaagtct ccacactact gtggcctgac aacagaactg agaggagagg360
attagactct ggggtgcttg catgggcaac tggatttttg catgattcct ttatgatttt420
gcttttaatg tatacaccca gaagagccaa tataaacgtt cctcatgcct aaaaaaaaaa480
aa 482

```

<210> 127  
 <211> 610  
 <212> DNA  
 <213> homo sapiens

<400> 127

```
ctcgagccgt gggcagtgcc gcggaatgcy cggagacact gaccttcagc gcctcggctc 60
```

0967395.12200

```
cagcgccatg ggcgcctcca ggaagttctt cgttggggga aactggaaga tgaacgggcg120
gaagcagagt ctggggggagc tcatcggcac tctgaacgcg gccaaagggtgc cggccgacac180
cgaggtgggt tgtgctcccc ctactgccta tatcgacttc gcccggcaga agctagatcc240
caagattgct gtggctgctc agaactgcta caaagtgact aatgggggctt ttactgggga300
gatcagccct ggcgatgatca aagactgcgg agccacgtgg gtggctcctgg ggcactcaga360
gagaaggcat gtctttgggg agtcagatga gctgattggg cagaaagtgg cccatgctct420
ggcagagggga ctcgagagtaa tgcctgcac tgggggagaag cttagatgaa aggggaagctg480
gcatcactga gaagggttgtt ttcgagcaga cagaggggtca tcgcagataa cgtgaaggac540
tgtggcaagg tcgtcctggc ctatgagcct ttttttgggc catttggtgc ctggcaaggc600
cttcaaacag 610
```

<210> 128

<211> 2072

<212> DNA

<213> homo sapiens

<400> 128

```
gggtcatgta ggtacaacag caaccaagaa gatcgatgtc tacctgcctt ctgcactcga 60
gccaggacag actgctgcca atgaccgtgg tgacaatggc cagcgccagg gtgcaggacc 120
tgatcggggt catctgctgg cagtatacaa gcgaaggacg ggagccgaag ctcaatgaca 180
atgtcagtgct ctactgcctg catattgctg aggatgatgg ggaggtggac accgatattcc 240
ccccgttggg ttccaatgag cccattcata agtttggctt cagtactttg gcccttgggt 300
gaaaagtact catctcctgg tctgacatcc aaagagtcac tctttgttcg aataaatgct 360
gctcatggat tctcccttat tcaggtggac aacacaaagg ttaccatgaa ggaaatctta 420
ctgaaggcag tgaagcgaag aaaaggatcc cagaaagttt caggccctca gtaccgcctg 480
gagaagcaga gcgagcccaa tgtcgccgtt gacctggaca gcactttgga gagccagagc 540
gcatggggagt tctgcctggt ccgcgagaac agttcaaggg cagacggggg ttttgaggag 600
gattcgcaaa ttgacatagc cacagtacag gatatgctta gcagccacca ttacaatcca 660
ttcaaagtca gcatgatcca cagactgcga ttcacaaccg acgtacagct aggtatctct 720
ggagacaaag tagagataga cctgtttacg aatcagaaag ccagcactaa gttttggatt 780
aagcagaaac ccattctcaat cgattccgac ctgctctgtg cctgtgacct tgctgaagag 840
aaaagcccca gtcacgcaat atttaaactc acgtatctaa gcaatcacga ctataaacac 900
ctctactttg aatcggacgc tgctaccgtc aatgaaattg tgctcaagg taaactacatc 960
ctggaatcgc gagctagcac tgcccgggct gactactttg ctcaaaaaca aagaaaactg1020
aacagacgta cgagcttcag cttccagaag gagaagaaat ccgggcagca gtgacactgg1080
cctccagcct caatctgttc cgtagctcag agcctgcctg ccaggggcaa gtgccctaga1140
gcccaaccgg tgtcctgaag tcctcggggg gaggccagcc cctggctcac tggcacaggg1200
caggtgggct ctcggggaag gtgtcggggg ccccctagga gggagcgctg gggacattgc1260
catgggacgg aagtctgctt ggcaagtggc ttgataagcg atgcttgggg gtcagaccac1320
cccctagagg agccacgtgc cggccagcca ccttcaatgc ctgccaccct gcccgaggat1380
gtacagagcc gtgcccacac atttccttgc aacttgatca aatttcttaa agcaaacaac1440
aaaaatgtac atttctgttt ttctttttaa taaacagggt tactctttat catggttgggt1500
atgatggacc attctttggg gcgaggatt gattatgtta ctctctttaa aatctgttcc1560
catattgaac aggcagattg gaaaagctat ggttcgattt ctcagaagaa atgtttaggt1620
cttagtcaat agttttaact atgccatttg tttaaatgag tgcatttgct tcgagggtag1680
tgtcttacta aaagttagga acagagacct agtgggtgtg ccaaggccgt gtcactttcc1740
ccttcagcac accccagctt ctgacctcag agcccaggag ctgctgggac agtgtgggg1800
gccaggagga ggggcgggtg ctggctctca ggcacgctgc actcccagcc agacatgggtc1860
tttccgtttc ttaagttagc agtgtagggt tcagctggca gttccacctg catgttctct1920
gcttcgctgc cttggaaggg gccacattcc ccattcctct tctccttaca gcgcctgcct1980
cctttttaag caggcggaag gctgctgttt ctcacgtttc agggagaggg gtgaccagga2040
gactgtgtcg tgcgtcggtc ctgggtggac ag 2072
```

<210> 129

<211> 980

<212> DNA

<213> homo sapiens

<400> 129

```
tttatggagt tagagcaggg gaacttaaaa acaaaagtgt atttaataac ttcagagac 60
tgtgataacc agtttatatt tgaaatatat acagcacttt gggagactga ggggtgaccc120
```

|            |            |             |             |             |                |
|------------|------------|-------------|-------------|-------------|----------------|
| tgatagtcct | ttgcacagtg | atcttcagat  | cttaaaagaa  | aaagaaggca  | tagaatatat180  |
| tttgcttaac | ttctctttta | aggataaactt | tccatttgat  | cctccatttg  | ttcgagtggg240  |
| gttacctggt | ctctcaggag | ggatgtgatt  | gggtggagga  | gcattatgta  | tggaaacttct300 |
| cacaaaacag | ggctggagca | gtgcctactc  | aatagaatcg  | gtcatcatgc  | aaataaatgc360  |
| caccttagtc | aaaggcaaag | ccagagtgc   | gtttggagca  | aataagaatc  | aatataatct420  |
| agcaagagcc | caacaatcct | ataattccat  | tgtacagata  | catgagaaaa  | atggctggta480  |
| cacccctcca | aaggaagatg | gctaaatatg  | ttgactgttg  | tatgtttgga  | ctaagtgtgc540  |
| tttaaagaaa | atctttccaa | catgcagaca  | aaagctttga  | gtgcccctat  | tacagcagta600  |
| ccgaagatgt | tagttaatag | atatttttagt | ggataaatctg | tcactctgaca | tccagtataa660  |
| gttacagcct | tcgcattttg | ctcatttttag | atatcttgga  | ctgagcagtg  | gggccttttac720 |
| tgtatttttc | ctgataaata | cacatactgg  | ccactcctta  | tctctttttc  | ttgaaaagtg780  |
| aactttttta | aggcagccaa | gtcaacatca  | gggctactga  | agttggaggg  | ctttaggggg840  |
| aacttttcta | tattgagccc | atgggggttac | aagggttttg  | caatatattg  | ttccctttta900  |
| cagccaatac | aggttttaat | cggatgtttc  | aatattgggt  | ttaggggatt  | ttaagggccc960  |
| tcttaagtca | taatagccct |             |             |             | 980            |

<210> 130

<211> 792

<212> DNA

<213> homo sapiens

<400> 130

|             |            |            |             |            |               |
|-------------|------------|------------|-------------|------------|---------------|
| ctgtttggca  | gggcggggcg | cctcgcaag  | atggtggcgc  | gcgcggcgtg | tggctcccgt 60 |
| cgtctggcca  | agtctcagcg | cacgcaaccg | gccggcgtct  | cgttggcctg | gagccacac120  |
| ccaccgggtc  | cctgaccccg | cgccccccgc | gcccggttcc  | cggcatgcct | cgcccccgt180  |
| agggaaacac  | gctccggaag | ggtggtcagc | gccgtggagg  | aggtgcccgg | agcagtgcc240  |
| aagctgactc  | gggttccagt | gacgatgagg | cagccagtga  | ggcccgagc  | accgccagt300  |
| aatgccccag  | ccttctcagc | accactgcag | aggacagcct  | tgggggggat | gtcgtggat360  |
| agcaagggcc  | agcaggaaga | ccttgaggaa | aagctgaagg  | agtatgtgga | ctgtctcaca420 |
| gacaagagtg  | ccaagacccg | gcaggtgcct | cctgagagcc  | tgcgcctggc | cctagcgtcc480 |
| gcctactccc  | ccgacttctt | gctggagcgc | cgccctcacgc | tagccgatgc | cctggaaaag540 |
| tgcctcaaga  | aagggaaggg | cgaggaacaa | gccctggctg  | ctgctgtgct | aggcctgctc600 |
| tgcgtgcagc  | tgggccctgg | acctaagggt | gaggagctgt  | ttcacagcct | gcagcctctg660 |
| ctggtctctg  | tgctcagtga | cagcacagct | agccctgctg  | cccggctcca | cgtagattgc720 |
| ctgtgccccca | tgaaaccctt | cctgcaactt | atccctcagc  | agagtgggtg | gttcccccta780 |
| tcttcagcct  | cc         |            |             |            | 792           |

<210> 131

<211> 1092

<212> DNA

<213> homo sapiens

<400> 131

|            |            |             |             |             |                 |
|------------|------------|-------------|-------------|-------------|-----------------|
| gtgggtcccc | ccggttccgg | cgcggttgag  | gccttcgggtg | gtgaacgagt  | ctccagcacc 60   |
| atgtctgggt | tgtctggccc | accagcccgg  | cgcgccctt   | ttcgttagc   | gttgcgtgctt 120 |
| ttgttcctgc | tcggccccag | attggctcct  | gccatctcct  | tccatctgcc  | cattaactct 180  |
| cgcaagtgcc | tccgtgagga | gattcacaa   | gacctgctag  | tgactggcgc  | gtacgagatc 240  |
| tccgaccagt | ctgggggcgc | tggcgccctg  | cgcagcacct  | caagatcaca  | gattctgctg 300  |
| gccatattct | ctactccaaa | gaggatgcaa  | ccaaggggaa  | atttgccttt  | accactgaag 360  |
| attatgacat | gtttgaagtg | tgttttgaga  | gcaaggggaa  | agggcgagata | cctgaccaac 420  |
| tcgtgatcct | agacatgaag | catggagtgg  | aggcgaaaaa  | ttacgaagag  | attgcaaaag 480  |
| ttgagaagct | caaaccatta | gaggtagagc  | tgcgacgcct  | agaagacctt  | tcagaatcta 540  |
| ttgttaatga | ttttgcctac | atgaagaaga  | gagaagagga  | gatgcgtgat  | accaacgagt 600  |
| caacaaacac | tcgggtccta | tacttcagca  | tcttttcaat  | gttctgtctc  | attggactag 660  |
| ctacctggga | ggtcttctac | ctgcgacgct  | tcttcaaggc  | caagaaattg  | attgagtaat 720  |
| gaatgaggca | tattctcctc | ccaccttgta  | cctcagccag  | cagaacatcg  | ctgggacgtg 780  |
| cctggcctaa | ggcatcctac | caacagcacc  | atcaaggcac  | gttggagcct  | tcttgccaga 840  |
| actgatctct | tttgggtgtg | gaggacatgg  | ggtaccacct  | acacccaaca  | agtcaatgag 900  |
| ggacttcttt | ttaatttggt | aggattttga  | ctgggttttg  | aacaataggt  | ctattattag 960  |
| agtcacctat | gacaaaaaat | aggggggttac | ctagataatg  | ccaaagtcag  | catttgcctc1020  |
| gggtcccctt | gtgggagctg | tgggacgatg  | ttttcttttc  | tgcccttttt  | ccggagcgtg1080  |

002225-12200

gggggccaaa ta

<210> 132  
 <211> 1523  
 <212> DNA  
 <213> homo sapiens

<400> 132

```
ctcatgtcta aagaaattcc tttttgtgtg aaaaagacta agagcatctt caacagtgcc 60
atgcaagaga tggagggttta cgtggagaac atccgcagaa gtttgggggtt ttttaattact 120
ctccatttag gacaccctac acaccaaca gccagtatca aatgctgctc gatcccacca 180
acccacagcg cggcactgcc aagatagaca agcaggagaa ggtcaagctc aactttgaca 240
tgacggcatc ccccaagatc ctgatgagca agcctgtgct gagtgggggc acaggccgcc 300
ggatttcctt gtcggatatg ccgcgctccc ccatgagcac aaactcttct gtgcacacgg 360
gctccgacgt ggagcaggat gctgagaaga aggccacgtc gagccacttc agtgcgagcg 420
aggagtcctat ggacttccag ggataagagc acagcttcac cagccatcca ccaagacggg 480
acaagcaggg agtttatccg gcagcccaaa gcccttctct cctcaactgt cagctcctat 540
cagcagaaa acggacaaaa cctccaccac cggcagcatc ctgaatctta acctggatcg 600
aagcaaaagct gagatggatt tgaaggagct gagcgagtcg gtccagcaac agtccacccc 660
tgttcctctc atctctccca agcgccagat tctgtagcagg ttccagctga atcttgacaa 720
gaccatagag agttgcaaa cacaattagg cataaatgaa atctcggaag atgtctatac 780
ggccgtagag cacagcgatt cggaggattc tgagaagtca gatagtagcg atagttagta 840
tatcagtgat gatgagcaga agtctaagaa cgagccagaa gacacagagg acaaagaagg 900
ttgtcagatg gacaaagagc catctgctgt taaaaaaaag cccaagccta caaacccagt 960
ggagattaaa gagagctga ctgagcctga gaaggacttt tccgaaaagg caaaaccttc1080
agtcaaggac aaggccagcc ctgagcctga aaagactgag acggattccc caacagtc1140
acctcacccc ataaaggata aactgaaggg aaaagatgag aggtattccc aagaccattc1200
tttgggcctg gactctgatt cagagagcga acttgtcata gatttaggag aacaggatgt1260
tgggcgggag ggtcgaaaaa ataagaagga acccaaagaa ccatctccca aacaccgggt1320
tgtaggtaaa actccaccat ccacgacggg gggcagccat tctcccccg aaacaccgggt1380
gtcacccgc tcttcgccc aaacttcggc ggctggcgcc acagccacca ccagcacgtc1440
ctccacggtc accgtcacgg ccccgcccc cgccgcccaca ggaagcccag tgaaaaagca1500
gaggccgctt ttaccgaagg aggaactgcc cggccgtgca gcgggtccgt gtggaactca1523
tcaagtaaaag tttcaaacgt cct
```

<210> 133  
 <211> 2241  
 <212> DNA  
 <213> homo sapiens

<400> 133

```
cgccgcccga ggcgcagaag ccgagctggg aaaagggagg cagaggaggc ggaggcagag 60
gcagaggcag agcccgggtg cgagaccaag cgacagaccg gcggggctgg gcctcgcaaa 120
gccggctcgg cgagctctcc cgacaccgga gccggggagg aaaagcagcg actcctcgt 180
cgcacccccg ggagccgcac tccagactgg ccggttagtc agggggtcag gagcagatcc 240
cgaggcaggc tttgtcagc ctccgacgag ggctggccct ttggaaggcg ccttcaacag 300
ccggaccaga caggccacca tgaccgagaa ttccacgtcc gcccctgcgg ccaagcccaa 360
gcgggccaag gctccaaga agtccacaga ccacccaag tattcagaca tgatcgtggc 420
tgccatccag gccgagaaga accgcgtgg ctctcgcgc cagtccattc agaagtatat 480
caagagccac tacaagggtg gtgagaacgc tgactcgag atcaagttgt ccatcaagcg 540
cctggtcacc accggtgtcc tcaagcagac caaaggggtg ggggcctcgg ggtccttcgg 600
gctagccaag agcgacgaac ccaagaagtc agtggccttc aagaagacca agaaggaaat 660
caagaaggta gccacgcaa agaaggcatc caagcccaag aaggctgcct ccaaagcccc 720
aaccaagaaa cccaaagcca ccccggtcaa gaaggccaag aagaagctgg ctgccacgcc 780
aaaggccaaa ccaagtgaac ccaaagcaaa gtccagtgcc aagaggggcg gcaagaagaa 900
gtgacaatga agtcttttct tgccgacact cctcctgtc tctattttt tgtaataaat 960
tttctccttt tttctctctt gatgtcacc accacctttt gcccccttct gttctgactt1020
tataagagac aggatttgga ttcttcagaa attacagaat aattcatttt tcttaacca1080
gttgtgcaag gacagcaaca accaatctaa tgatgagaat gtacttatat tttgttttgc1140
tattaacctt cttacggggg tagggatttg cgggggggct tgtgtgtttt gttggcttgt1200
```

00221 56E4960



<210> 136  
 <211> 2238  
 <212> DNA  
 <213> homo sapiens

<400> 136

```

cacatgttctg gggaccgagt ggggtcaatc ttctggtgct gcctctccag gtctcttcca 60
ggccgggtcat agacgtactc cctctgaggc cgaccgatgg ttagaagagg tgtctaagag 120
cgtccgggct cagcagcccc aggcctcagc tgctcctctg cagccagttc tccagcctcc 180
tccacccact gccatctccc agccagcatc acctttccaa gggaatgcat tcctcacctc 240
tcagcctgtg ccagtgggtg tgggtcccagc cctgcaacca gcctttgtcc ctgcccagtc 300
ctatcctgtg gccaatggaa tgccctatcc agcccctaag gtgcctgtgg tgggcatcac 360
tccctcccag atggtggcca acgtatttgg cactgcaggc caccctcagg ctgcccattc 420
ccatcagtca cccagcctgg tcaggcagca gacattccct cactacgagg caagcagtgc 480
taccaccagt cctttcttta agcctcctgc tcagcacctc aacggttctg cagctttcaa 540
tgggtgtagat gatggcaggc tggcctcagc agacaggcat acagaggttc ctacaggcac 600
ctgcccagtg gatccttttg aagcccagtg ggctgcatta gaaaataagt ccaagcagcg 660
tactaatccc tcccctacca accctttctc cagtgcacta cagaagacgt ttgaaattga 720
actttaagca atcattatgg ctatgtatct tgtccatacc agacagggag cagggggtag 780
cgggtcaaagg agcaaaacag actttgtctc ctgattagta ctcttttcac taatcccaaa 840
gggtcccaagg aacaagtcca ggcccagagt actgtgagg gtgattttga aagacatggg 900
aaaaagcatt cctagagaaa agctgccttg caattaggct aaagaagtca aggaaatggt 960
gctttctgta ctccctcttc ccttaccctt ttacaaatct ctggcaacag agaggcaaag1020
tatctgaaca agaattctata ttccaagcac atttactgaa atgtaaaaca caacaggaag1080
caaagcaatc tccctttgtt ttccaggcca ttcacctgcc tcctgtcagt agtggcctgt1140
attagagatc aagaagagtg gtttgtgctc aggtcgggga acagagaggc acgctatgct1200
gccagaatcc ccaggaggggc atatcagcaa ctgcccagca gagctatatt ttgggggaga1260
agttgagctt ccattttgag taacagaata aatattatat atatcaaaag ccaaaatctt1320
tatttttatg catttagaat attttaaata gttctcagat attaagaagt tgtatgagtt1380
gtaagtaatc ttgccaaagg taaaggggct agttgtaaga aattgtacat aagattgatt1440
tatcattgat gcctactgaa ataaaaagag gaaaggctgg aagctgcaga caggatccct1500
agcttgtttt ctgtcagtca ttcattgtaa gtagcacatt gcaacaacaa tcatgcttat1560
gaccaataca gtcactaggt tgtagttttt tttaaataaa ggaaaagcag tattgtcctg1620
gttttaaaacc tatgatggaa ttctaattgtc attattttta tggaatcaat cgaaatatgc1680
tctatagaga atatatcttt tatatattgc tgcagtttcc ttatgttaat cctttaacac1740
taaggtaaca tgacataatc ataccataga agggaacaca ggttaccata ttggtttgta1800
atatgggtct tgggtgggtt tggttttatcc tttaaatttt gttcccatga gttttgtggg1860
gatggggatt ctggttttat tagctttgtg tgtgtcctct tccccaaac ccccttttgg1920
tgagaacatc cctttgacag ttgcagcctc ttgacctcgg ataacaataa gagagctcat1980
ctcattttta cttttgacg ttggccttac aatcaaatgt aagttatata tatttgact2040
gatgaaaatt tataatctgc ttttaacaaa ataaatgttc atggtagaaa aatttgccca2100
tgaagggctg ttctttcccc tttcctttat tagtaaatga atttattttt cgttcttttg2160
gtcttactct ccattctact gctgctgtaa atccctagtt tagtgactag aaaaataccc2220
ttaagattca tattttca 2238

```

<210> 137  
 <211> 398  
 <212> DNA  
 <213> homo sapiens

<400> 137

```

tgcagattgg ttggggcagc ccggggaggc tggctccgac acacgactga gtgtgcctac 60
actggtccca cagggttttca gctgtggagt ttgggatctg agcttgagc ccatttgttt120
ctggcagttc cgtcatatt ttccacttga agacatcgcc tccgttcctt ccaagctggg180
agaccagaag tcaacaacag gaggtggag aggccgggtc tcacaatccg cttggctggg240
gagtccactg aggttcttgc atcctgaagc aaaccatgga gagctggtgg ggacttccct300
gttttgctgt cctgtgtttt ctaatgcacg cccgaggtca aagagacttt gattttggca360
gatgccttgg atgacctga aaccaccaa gaagccaa 398

```

<210> 138  
 <211> 1084

0967395.12700

```
ccaagatggc  ggcacgatgc  ctgcccggt  gttgggggtg  cggtgacgac  aggcagcaaa  60
agaccagctg  gtcccagatt  cgctgctgga  gtgctgggatg  gagcctttct  ctgccctctg  120
```





```

agtctgggag tggggaagtg atcttttggt cccatcctct tcttttagca gtaaaatagc1500
tgagggaaaa gggagggaaa aggaagttat gggaatacct gtggtggttg tgatccctag1560
gtcttgggag ctcttggagg tgtctgtatc agtggatttc ccatcccctg tgggaaattal620
gtaggctcat ttactgtttt aggtctagcc tatgtggatt ttttcctaac atacctaagc1680
aaaccacagt tcaggatggg aattcttatt ctttcgttca gtttaagttt tcccttcac1740
tgggcaactga agggatatgt gaaacaatgt taacattttt ggtagtcttc aaccagggat1800
tgtttctgtt taacttctta taggaaagct tgagtaaaaa aaatattgtc tttttgtatg1860
tcaaaaaaaaa aaat

```

1874

<210> 142  
 <211> 198  
 <212> PRT  
 <213> homo sapiens

<400> 142

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Asp | Ile | Trp | Thr | Met | Asn | Leu | Gln | Arg | Tyr | Trp | Gly | Glu | Ile | Pro |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ile | Ser | Ser | Ser | Gln | Thr | Asn | Arg | Ser | Ser | Phe | Asp | Leu | Leu | Pro | Arg |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Glu | Phe | Arg | Leu | Val | Glu | Val | His | Asp | Pro | Pro | Leu | His | Gln | Pro | Ser |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ala | Asn | Lys | Pro | Lys | Pro | Pro | Thr | Met | Leu | Asp | Ile | Pro | Ser | Glu | Pro |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Cys | Ser | Leu | Thr | Ile | His | Thr | Ile | Gln | Leu | Ile | Gln | His | Asn | Arg | Arg |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Leu | Arg | Asn | Leu | Ile | Ala | Thr | Ala | Gln | Ala | Gln | Asn | Gln | Gln | Gln | Thr |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Glu | Gly | Val | Lys | Thr | Glu | Glu | Ser | Glu | Pro | Leu | Pro | Ser | Cys | Pro | Gly |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Ser | Pro | Pro | Leu | Pro | Asp | Asp | Leu | Leu | Pro | Leu | Asp | Cys | Lys | Asn | Pro |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Asn | Ala | Pro | Phe | Gln | Ile | Arg | His | Ser | Asp | Pro | Glu | Ser | Asp | Phe | Tyr |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Arg | Gly | Lys | Gly | Glu | Pro | Val | Thr | Glu | Leu | Ser | Trp | His | Ser | Cys | Arg |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Gln | Leu | Leu | Tyr | Gln | Gly | Ser | Gly | Thr | Asn | Pro | Gly | Gln | Arg | Arg | Ala |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Phe | Asp | Cys | Ala | Asn | Glu | Ser | Val | Leu | Glu | Asp | Pro | Asn | Leu | Met | Leu |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Ala | His | Glu | Tyr | Trp | Pro |     |     |     |     |     |     |     |     |     |     |
|     |     | 195 |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 143  
 <211> 92  
 <212> PRT  
 <213> homo sapiens

<400> 143

Ile Val Trp Met Val Arg Leu His Gly Ser Glu Gly Met Ser Ser Ile

00673395.122700

| 1         |           |           |           | 5         |           |           |           | 10        |           |           |           | 15        |           |     |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|
| Val       | Gly       | Gly       | Phe<br>20 | Gly       | Leu       | Leu       | Ala       | Glu<br>25 | Gly       | Trp       | Cys       | Arg       | Gly<br>30 | Gly | Ser       |
| Trp       | Thr       | Ser<br>35 | Thr       | Arg       | Arg       | Asn       | Ser<br>40 | Arg       | Gly       | Ser       | Lys       | Ser<br>45 | Lys       | Glu | Leu       |
| Leu       | Leu<br>50 | Val       | Trp       | Leu       | Asp       | Asp<br>55 | Ile       | Gly       | Ile       | Ser       | Pro<br>60 | Gln       | Tyr       | Leu | Cys       |
| Arg<br>65 | Phe       | Ile       | Val       | His       | Met<br>70 | Ser       | Leu       | Gln       | Val       | Gln<br>75 | Gln       | Thr       | Phe       | Ile | Lys<br>80 |
| Cys       | Gln       | Ala       | Phe       | Cys<br>85 | Val       | Gly       | Gln       | Arg       | Leu<br>90 | Ile       | Met       |           |           |     |           |

<210> 144  
 <211> 96  
 <212> PRT  
 <213> homo sapiens

<400> 144

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Asp<br>1  | Pro       | Cys       | Pro       | Glu<br>5  | Arg       | Ser       | Thr       | Lys       | Asn<br>10 | Arg       | His       | Gly       | Ala       | Gln<br>15 | Gly       |
| Met       | Pro       | Lys       | Ser<br>20 | Leu       | Gln       | Gly       | Phe       | Pro<br>25 | Arg       | Ser       | Arg       | Ser       | Ala<br>30 | Gly       | Ala       |
| Gly       | Ala       | Asn<br>35 | His       | Arg       | Val       | Leu       | Arg<br>40 | Ser       | Pro       | Asp       | Val       | Gln<br>45 | Gly       | Ser       | Arg       |
| Lys       | Thr<br>50 | Gly       | Arg       | Ser       | Gly       | Pro<br>55 | Glu       | Pro       | Arg       | Gln       | Gly<br>60 | Gly       | Thr       | Thr       | Leu       |
| Phe<br>65 | Thr       | Ala       | Ala       | Ser       | Gln<br>70 | Ser       | Gly       | Leu       | Gly       | Gly<br>75 | Cys       | Leu       | Asp       | Leu       | Glu<br>80 |
| Arg       | Pro       | Glu       | Ala       | Arg<br>85 | Ile       | Ala       | Ser       | Asp       | Pro<br>90 | Glu       | Ser       | Trp       | Phe       | Val<br>95 | Asp       |

<210> 145  
 <211> 52  
 <212> PRT  
 <213> homo sapiens

<400> 145

|          |           |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Glu<br>1 | Gly       | Arg       | Val       | Gln<br>5 | Gln | Gly | Ser       | Phe       | Val<br>10 | Asn | Val | Gln       | Gln       | Gly<br>15 | Pro |
| Gln      | Glu       | Pro       | Phe<br>20 | Ile      | Glu | Phe | Ile       | His<br>25 | Gln       | Leu | Thr | Gln       | Ala<br>30 | Ile       | Lys |
| Ser      | Thr       | His<br>35 | Gly       | Thr      | Ser | Thr | Ile<br>40 | Pro       | Arg       | Val | Ser | Arg<br>45 | Ile       | Thr       | Leu |
| Lys      | Asp<br>50 | Lys       | Pro       |          |     |     |           |           |           |     |     |           |           |           |     |

<210> 146  
 <211> 47

004227.5627960

<212> PRT  
<213> homo sapiens

<400> 146

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Arg | Thr | Ser | His | Ser | Gly | Thr | Leu | Pro | Ile | Pro | Arg | Leu | Lys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ile | Cys | Phe | Lys | Lys | Arg | Gly | Asn | Met | Asn | Lys | Asp | Pro | Thr | Thr | Leu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | Ala | Gln | Val | Leu | Phe | Thr | Leu | Asn | Phe | Leu | Asn | Leu | Asp | Asn |     |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |

<210> 147  
<211> 66  
<212> PRT  
<213> homo sapiens

<400> 147

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Lys | Phe | Lys | Lys | Leu | Arg | Val | Asn | Asn | Thr | Cys | Ala | Ser | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Val | Val | Gly | Ser | Leu | Phe | Ile | Phe | Pro | Leu | Phe | Leu | Lys | His | Ile | Phe |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Lys | Arg | Gly | Met | Gly | Asn | Val | Pro | Leu | Trp | Leu | Val | Leu | Glu | Gly | Tyr |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Thr | Arg | Tyr | Pro | Trp | Asn | Gly | Arg | Cys | Ser | Met | Cys | Ala | Leu | Asn | Cys |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Leu | Gly |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 148  
<211> 187  
<212> PRT  
<213> homo sapiens

<400> 148

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | Gly | Glu | Gly | Arg | Pro | Glu | Gly | Asn | Gly | Asp | Ile | Arg | Gly | Gly |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | Arg | Ser | Gly | Cys | Asp | Leu | Ser | Leu | Leu | Ala | Pro | Leu | Leu | Pro | Pro |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ser | Ser | Ser | Glu | Ser | Trp | Glu | Cys | Cys | Tyr | Pro | Trp | Lys | Ile | Lys | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Gly | Leu | Gln | Glu | Leu | Ser | Val | Trp | Glu | Glu | Ser | Met | Ala | Gln | His | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ala | Cys | Val | Pro | Phe | Cys | Ser | Gly | Ser | Leu | Ser | Pro | Pro | Pro | Ser | Gln |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Pro | Gln | Arg | Leu | Ser | Pro | Ser | Pro | Ser | Ser | Ser | Pro | Glu | Asp | Ser | Ser |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Asp | Gly | Arg | Ala | Gly | Pro | Pro | Glu | Pro | Thr | Gly | Ser | Ser | Gly | Cys | Thr |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |

002227" 96EE2960

|            |            |            |            |            |            |            |            |            |            |            |            |            |     |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----|------------|------------|
| Gly        | Ser        | Trp<br>115 | Cys        | Ser        | Leu        | Ser        | Pro<br>120 | Val        | His        | Phe        | Ser        | His<br>125 | Trp | Gly        | Met        |
| Glu        | Cys<br>130 | Pro        | Cys        | Ile        | Leu        | Cys<br>135 | Cys        | Arg        | Ser        | Pro        | His<br>140 | Leu        | His | Leu        | Arg        |
| Gly<br>145 | Leu        | Gly        | Ser        | Pro        | Ser<br>150 | Ser        | Pro        | Gln        | Cys        | Pro<br>155 | Gln        | Ser        | Leu | Ser        | Gln<br>160 |
| Thr        | Val        | Gly        | Trp        | Asn<br>165 | Met        | Arg        | Leu        | Glu        | Ala<br>170 | Glu        | Arg        | Gly        | Ser | Glu<br>175 | His        |
| His        | Ser        | Pro        | Cys<br>180 | Thr        | Trp        | Val        | Ala        | Ser<br>185 | Cys        | Pro        |            |            |     |            |            |

<210> 149  
 <211> 147  
 <212> PRT  
 <213> homo sapiens

<400> 149

|            |            |            |            |           |           |            |            |            |           |           |            |            |            |           |           |
|------------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|
| Arg<br>1   | Glu        | Asp        | Trp        | Asn<br>5  | Arg       | Gly        | Lys        | Gly        | Glu<br>10 | Val       | Ala        | Pro        | Cys        | Phe<br>15 | Val       |
| Gln        | Pro        | Gly        | Ser<br>20  | Trp       | Gln       | Pro        | Trp        | Cys<br>25  | Trp       | Gly       | Leu        | Asp<br>30  | Pro        | Thr       | Thr       |
| Pro        | Ala        | His<br>35  | Leu        | Ala       | Glu       | His        | Leu<br>40  | Val        | Pro       | Ile       | Glu        | Asp<br>45  | Cys        | Leu       | Pro       |
| Leu<br>50  | Leu        | Leu        | His        | Leu       | Gln       | Leu<br>55  | Pro        | Pro        | Leu       | Leu       | Gly<br>60  | Thr        | Phe        | His       | Thr       |
| Leu<br>65  | Gln        | Asp        | Cys        | Val       | Cys<br>70 | Ser        | Gly        | Ser        | Pro       | Glu<br>75 | Gly        | Cys        | Ser        | Ser       | Cys<br>80 |
| Cys        | His        | Arg        | Ala        | Ser<br>85 | Ile       | Leu        | Ile        | Leu<br>90  | Leu       | Leu       | Ile        | Val        | Gln        | Leu<br>95 | Leu       |
| Ser        | Val        | Cys        | Ile<br>100 | Arg       | Leu       | Ser        | Asp        | Gln<br>105 | Arg       | Val       | His        | Gln        | His<br>110 | Gln       | Glu       |
| Gly        | His        | Val<br>115 | Glu        | Gln       | Gln       | Gly        | Thr<br>120 | His        | His       | Gly       | Gln        | Val<br>125 | Asp        | Asp       | Asn       |
| Asp        | Asp<br>130 | Leu        | Asp        | Gly       | Gly       | Gly<br>135 | Leu        | Arg        | Ser       | Ser       | Tyr<br>140 | Leu        | His        | Ser       | His       |
| Ser<br>145 | Arg        | Gln        |            |           |           |            |            |            |           |           |            |            |            |           |           |

<210> 150  
 <211> 142  
 <212> PRT  
 <213> homo sapiens

<400> 150

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Phe<br>1 | Phe | Phe | Phe | Phe<br>5 | Trp | Arg | Glu | Ile | Lys<br>10 | Gln | Phe | Asn | Asp | Gly<br>15 | Phe |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|

00673395-122700

|           |            |            |            |           |           |            |            |            |           |           |            |            |            |           |           |  |
|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|--|
| Leu       | Asp        | Leu        | His<br>20  | Thr       | Thr       | Leu        | Arg        | Gln<br>25  | Glu       | Asp       | Lys        | Ile        | Phe<br>30  | Ser       | Pro       |  |
| Cys       | Thr        | Gly<br>35  | Thr        | Thr       | Lys       | Phe        | Arg<br>40  | Asp        | Lys       | Arg       | Gln        | Pro<br>45  | Lys        | Tyr       | Arg       |  |
| Gly       | Cys<br>50  | Gly        | Val        | Gln       | Ile       | His<br>55  | Ala        | Gln        | Pro       | Arg       | Val<br>60  | Ser        | Cys        | Ser       | Asn       |  |
| Arg<br>65 | Pro        | Ser        | Gly        | Ser       | Val<br>70 | Thr        | Val        | Asp        | Thr       | Gly<br>75 | Glu        | Arg        | Arg        | Asp       | Cys<br>80 |  |
| Pro       | Asp        | Pro        | Ser        | Ser<br>85 | Ala       | Gly        | Glu        | Gly        | Thr<br>90 | Gly       | Ser        | Arg        | Val        | Cys<br>95 | Met       |  |
| Gly       | Thr        | Pro        | Cys<br>100 | Pro       | Ser       | Ala        | Arg        | Ser<br>105 | Ala       | Gln       | Gly        | Thr        | Ala<br>110 | Asn       | Thr       |  |
| Ser       | Phe        | Gln<br>115 | Cys        | Thr       | Leu       | Lys        | Thr<br>120 | Gln        | Trp       | Ala       | Gln        | Gly<br>125 | Ala        | Gln       | Leu       |  |
| Ser       | His<br>130 | Gln        | Ser        | Cys       | Pro       | Gln<br>135 | Gly        | Trp        | Ser       | Trp       | Gly<br>140 | Trp        | Gly        |           |           |  |

<210> 151  
 <211> 464  
 <212> PRT  
 <213> homo sapiens

<400> 151

|            |           |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
|------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Arg<br>1   | Gln       | Gln        | Thr        | Val<br>5   | Leu        | Gly        | Ser        | Cys        | Ser<br>10  | Ser        | Ser        | Ile        | Leu        | Pro<br>15  | Cys        |  |
| Gln        | Leu       | Leu        | Lys<br>20  | His        | Gln        | Gly        | Ser        | Ser<br>25  | Lys        | Thr        | Glu        | Met        | Thr<br>30  | Lys        | Asn        |  |
| Trp        | Leu       | Ile<br>35  | Gln        | Thr        | Lys        | Arg        | Arg<br>40  | Tyr        | Phe        | Ser        | Ser        | Pro<br>45  | Lys        | Gln        | Met        |  |
| Ser        | Met<br>50 | Thr        | His        | Trp        | Pro        | Arg<br>55  | Thr        | Ala        | Trp        | Leu        | Thr<br>60  | Gly        | Cys        | Ser        | Val        |  |
| Thr<br>65  | Leu       | Phe        | Leu        | Phe        | Pro<br>70  | Ser        | Gln        | Tyr        | Val        | Asp<br>75  | Val        | Ala        | Ser        | Leu        | Gly<br>80  |  |
| Leu        | Val       | Pro        | Gln        | Leu<br>85  | Thr        | Gly        | Gly        | Thr        | Leu<br>90  | Tyr        | Lys        | Tyr        | Asn        | Asn<br>95  | Phe        |  |
| Gln        | Met       | His        | Leu<br>100 | Asp        | Arg        | Gln        | Gln        | Phe<br>105 | Leu        | Asn        | Asp        | Leu        | Arg<br>110 | Asn        | Asp        |  |
| Ile        | Glu       | Lys<br>115 | Lys        | Ile        | Gly        | Phe        | Asp<br>120 | Ala        | Ile        | Met        | Arg        | Val<br>125 | Arg        | Thr        | Ser        |  |
| Thr<br>130 | Gly       | Phe        | Arg        | Ala        | Thr        | Asp<br>135 | Phe        | Phe        | Gly        | Gly        | Ile<br>140 | Leu        | Met        | Asn        | Asn        |  |
| Thr<br>145 | Thr       | Asp        | Val        | Glu        | Met<br>150 | Ala        | Ala        | Ile        | Asp        | Cys<br>155 | Asp        | Lys        | Ala        | Val        | Thr<br>160 |  |
| Val        | Glu       | Phe        | Lys        | His<br>165 | Asp        | Asp        | Lys        | Leu        | Ser<br>170 | Glu        | Asp        | Ser        | Gly        | Ala<br>175 | Leu        |  |

09673395-12200

00673395-122700

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Ile        | Gln        | Cys        | Ala<br>180 | Val        | Leu        | Tyr        | Thr        | Thr<br>185 | Ile        | Ser        | Gly        | Gln        | Arg<br>190 | Arg        | Leu        |  |
| Arg        | Ile        | His<br>195 | Asn        | Leu        | Gly        | Leu        | Asn<br>200 | Cys        | Ser        | Ser        | Gln        | Leu<br>205 | Ala        | Asp        | Leu        |  |
| Tyr        | Lys<br>210 | Ser        | Cys        | Glu        | Thr        | Asp<br>215 | Ala        | Leu        | Ile        | Asn        | Phe<br>220 | Phe        | Ala        | Lys        | Ser        |  |
| Ala<br>225 | Phe        | Lys        | Ala        | Val        | Leu<br>230 | His        | Gln        | Pro        | Leu        | Lys<br>235 | Val        | Ile        | Arg        | Glu        | Ile<br>240 |  |
| Leu        | Val        | Asn        | Gln        | Thr<br>245 | Ala        | His        | Met        | Leu        | Ala<br>250 | Cys        | Tyr        | Arg        | Lys        | Asn<br>255 | Cys        |  |
| Ala        | Ser        | Pro        | Ser<br>260 | Ala        | Ala        | Ser        | Gln        | Leu<br>265 | Ile        | Leu        | Pro        | Asp        | Ser<br>270 | Met        | Lys        |  |
| Val        | Leu        | Pro<br>275 | Val        | Tyr        | Met        | Asn        | Cys<br>280 | Leu        | Leu        | Lys        | Asn        | Cys<br>285 | Val        | Leu        | Leu        |  |
| Ser        | Arg<br>290 | Pro        | Glu        | Ile        | Ser        | Thr<br>295 | Asp        | Glu        | Arg        | Ala        | Tyr<br>300 | Gln        | Arg        | Gln        | Leu        |  |
| Val<br>305 | Met        | Thr        | Met        | Gly        | Val<br>310 | Ala        | Asp        | Ser        | Gln        | Leu<br>315 | Phe        | Phe        | Tyr        | Pro        | Gln<br>320 |  |
| Leu        | Leu        | Pro        | Ile        | His<br>325 | Thr        | Leu        | Asp        | Val        | Lys<br>330 | Ser        | Thr        | Met        | Leu        | Pro<br>335 | Ala        |  |
| Ala        | Val        | Arg        | Cys<br>340 | Ser        | Glu        | Ser        | Arg        | Leu<br>345 | Ser        | Glu        | Glu        | Gly        | Ile<br>350 | Phe        | Leu        |  |
| Leu        | Ala        | Asn<br>355 | Gly        | Leu        | His        | Met        | Phe<br>360 | Leu        | Trp        | Leu        | Gly        | Val<br>365 | Ser        | Ser        | Pro        |  |
| Pro        | Glu<br>370 | Leu        | Ile        | Gln        | Gly        | Ile<br>375 | Phe        | Asn        | Val        | Pro        | Ser<br>380 | Phe        | Ala        | His        | Ile        |  |
| Asn<br>385 | Thr        | Asp        | Met        | Thr        | Leu<br>390 | Leu        | Pro        | Glu        | Val        | Gly<br>395 | Asn        | Pro        | Tyr        | Ser        | Gln<br>400 |  |
| Gln        | Leu        | Arg        | Met        | Ile<br>405 | Met        | Gly        | Ile        | Ile        | Gln<br>410 | Gln        | Lys        | Arg        | Pro        | Tyr<br>415 | Ser        |  |
| Met        | Lys        | Leu        | Thr<br>420 | Ile        | Val        | Lys        | Gln        | Arg<br>425 | Glu        | Gln        | Pro        | Glu        | Met<br>430 | Val        | Phe        |  |
| Arg        | Gln        | Phe<br>435 | Leu        | Val        | Glu        | Asp        | Lys<br>440 | Gly        | Leu        | Tyr        | Gly        | Gly<br>445 | Ser        | Ser        | Tyr        |  |
| Val        | Asp<br>450 | Phe        | Leu        | Cys        | Cys        | Val<br>455 | His        | Lys        | Glu        | Ile        | Cys<br>460 | Gln        | Leu        | Leu        | Asn        |  |

<210> 152

<211> 172

<212> PRT

<213> homo sapiens

<400> 152

Thr Met Leu Glu Lys Ile Pro Lys Glu Glu Gln Glu Glu Thr Ser Ala

09673395 "122700

| 1                  |            |            | 5          |            |            | 10         |            |            | 15         |            |            |            |            |           |            |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|
| Ile                | Arg        | Val        | Gly<br>20  | Phe        | Ile        | Thr        | Tyr        | Asn<br>25  | Lys        | Val        | Leu        | His        | Phe<br>30  | Phe       | Asn        |
| Val                | Lys        | Ser<br>35  | Asn        | Leu        | Ala        | Gln        | Pro<br>40  | Gln        | Met        | Met        | Gly        | Val<br>45  | Thr        | Asp       | Val        |
| Gly                | Glu<br>50  | Val        | Phe        | Val        | Pro        | Leu<br>55  | Leu        | Asp        | Gly        | Phe        | Leu<br>60  | Val        | Asn        | Tyr       | Gln        |
| Glu<br>65          | Ser        | Gln        | Ser        | Val        | Ile<br>70  | His        | Asn        | Leu        | Leu        | Asp<br>75  | Gln        | Ile        | Pro        | Asp       | Met<br>80  |
| Phe                | Ala        | Asp        | Ser        | Asn<br>85  | Glu        | Asn        | Glu        | Thr        | Val<br>90  | Phe        | Ala        | Pro        | Val        | Ile<br>95 | Gln        |
| Ala                | Gly        | Met        | Glu<br>100 | Ala        | Leu        | Lys        | Ala        | Ala<br>105 | Asp        | Cys        | Pro        | Gly        | Lys<br>110 | Leu       | Phe        |
| Ile                | Phe        | His<br>115 | Ser        | Ser        | Leu        | Pro        | Thr<br>120 | Ala        | Glu        | Ala        | Pro        | Gly<br>125 | Lys        | Leu       | Lys        |
| Asn                | Arg<br>130 | Asp        | Asp        | Lys        | Lys        | Leu<br>135 | Val        | Asn        | Thr        | Asp        | Lys<br>140 | Glu        | Lys        | Ile       | Leu        |
| Phe<br>145         | Gln        | Pro        | Gln        | Thr        | Asn<br>150 | Val        | Tyr        | Asp        | Ser        | Leu<br>155 | Ala        | Lys        | Asp        | Cys       | Val<br>160 |
| Ala                | His        | Arg        | Leu        | Leu<br>165 | Cys        | Asp        | Thr        | Leu        | Pro<br>170 | Leu        | Ser        |            |            |           |            |
| <210> 153          |            |            |            |            |            |            |            |            |            |            |            |            |            |           |            |
| <211> 141          |            |            |            |            |            |            |            |            |            |            |            |            |            |           |            |
| <212> PRT          |            |            |            |            |            |            |            |            |            |            |            |            |            |           |            |
| <213> homo sapiens |            |            |            |            |            |            |            |            |            |            |            |            |            |           |            |
| <400> 153          |            |            |            |            |            |            |            |            |            |            |            |            |            |           |            |
| Gly<br>1           | Ser        | Thr        | Val        | Phe<br>5   | Thr        | Glu        | Phe        | Val        | Ile<br>10  | Val        | Leu        | Glu        | Leu        | His<br>15 | Gly        |
| His                | Cys        | Leu        | Val<br>20  | Thr        | Ile        | Asp        | Gly        | Ser<br>25  | His        | Phe        | Tyr        | Ile        | Gly<br>30  | Gly       | Val        |
| Val                | His        | Gln<br>35  | Asp        | Ser        | Thr        | Lys        | Glu<br>40  | Ile        | Ser        | Gly        | Ser        | Glu<br>45  | Thr        | Cys       | Ala        |
| Gly                | Thr<br>50  | Asn        | Pro        | His        | Asn        | Ser<br>55  | Ile        | Lys        | Ala        | Tyr        | Phe<br>60  | Leu        | Phe        | Asn       | Ile        |
| Ile<br>65          | Ser        | Glu        | Val        | Val        | Gln<br>70  | Lys        | Leu        | Leu        | Ser        | Ile<br>75  | Gln        | Val        | His        | Leu       | Glu<br>80  |
| Ile                | Val        | Val        | Phe        | Val<br>85  | Lys        | Gly        | Ser        | Ser        | Ser<br>90  | Glu        | Leu        | Arg        | Asn        | Gln<br>95 | Pro        |
| Gln                | Arg        | Gly        | His<br>100 | Val        | His        | Ile        | Leu        | Thr<br>105 | Arg        | Lys        | Glu        | Glu        | Glu<br>110 | Cys       | His        |
| Arg                | Ala        | Ala<br>115 | Gly        | Glu        | Pro        | Arg        | Ser<br>120 | Pro        | Trp        | Pro        | Met        | Ser<br>125 | His        | Arg       | His        |

Leu Phe Gly Ala Gly Lys Val Ser Ser Leu Cys Leu Tyr  
 130 135 140

<210> 154  
 <211> 504  
 <212> PRT  
 <213> homo sapiens

<400> 154

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Leu<br>1   | Asp        | Arg        | Cys        | Gly<br>5   | Leu        | Tyr        | Pro        | Val        | Ser<br>10  | Ser        | Leu        | Leu        | Gln        | Val<br>15  | Glu        |
| Gly        | Ser        | Leu        | Trp<br>20  | Arg        | Ala        | Ala        | Gly        | Val<br>25  | Phe        | Gln        | Pro        | Pro        | Pro<br>30  | Gly        | Leu        |
| Ala        | His        | Ala<br>35  | Asn        | Asp        | Trp        | Arg        | Phe<br>40  | Thr        | Ala        | Arg        | Val        | His<br>45  | Gly        | Gly        | Ala        |
| Leu        | Gly<br>50  | Glu        | His        | Asp        | Lys        | Met<br>55  | Val        | Ala        | Ala        | Ala        | Thr<br>60  | Gly        | Ser        | Glu        | Ile        |
| Leu<br>65  | Leu        | Trp        | Ala        | Leu        | Gln<br>70  | Ala        | Glu        | Gly        | Gly        | Gly<br>75  | Ser        | Glu        | Ile        | Gly        | Val<br>80  |
| Phe        | His        | Leu        | Gly        | Val<br>85  | Pro        | Val        | Glu        | Ala        | Leu<br>90  | Phe        | Phe        | Val        | Gly        | Asn<br>95  | Gln        |
| Leu        | Ile        | Ala        | Thr<br>100 | Ser        | His        | Thr        | Gly        | Arg<br>105 | Ile        | Gly        | Val        | Trp        | Asn<br>110 | Ala        | Val        |
| Thr        | Lys        | His<br>115 | Trp        | Gln        | Val        | Gln        | Glu<br>120 | Val        | Gln        | Pro        | Ile        | Thr<br>125 | Ser        | Tyr        | Asp        |
| Ala        | Ala<br>130 | Gly        | Ser        | Phe        | Leu        | Leu<br>135 | Leu        | Gly        | Cys        | Asn        | Asn<br>140 | Gly        | Ser        | Ile        | Tyr        |
| Tyr<br>145 | Val        | Asp        | Val        | Gln        | Lys<br>150 | Phe        | Pro        | Leu        | Arg        | Met<br>155 | Lys        | Asp        | Asn        | Asp        | Leu<br>160 |
| Leu        | Val        | Ser        | Glu        | Leu<br>165 | Tyr        | Arg        | Asp        | Pro        | Ala<br>170 | Glu        | Asp        | Gly        | Val        | Thr<br>175 | Ala        |
| Leu        | Ser        | Val        | Tyr<br>180 | Leu        | Thr        | Pro        | Lys        | Thr<br>185 | Ser        | Asp        | Ser        | Gly        | Asn<br>190 | Trp        | Ile        |
| Glu        | Ile        | Ala<br>195 | Tyr        | Gly        | Thr        | Ser        | Ser<br>200 | Gly        | Gly        | Val        | Arg        | Val<br>205 | Ile        | Val        | Gln        |
| His        | Pro<br>210 | Glu        | Thr        | Val        | Gly        | Ser<br>215 | Gly        | Pro        | Gln        | Leu        | Phe<br>220 | Gln        | Thr        | Phe        | Thr        |
| Val<br>225 | His        | Arg        | Ser        | Pro        | Val<br>230 | Thr        | Lys        | Ile        | Met        | Leu<br>235 | Ser        | Glu        | Lys        | His        | Leu<br>240 |
| Ile        | Ser        | Val        | Cys        | Ala<br>245 | Asp        | Asn        | Asn        | His        | Val<br>250 | Arg        | Thr        | Trp        | Ser        | Val<br>255 | Thr        |
| Arg        | Phe        | Arg        | Gly<br>260 | Met        | Ile        | Ser        | Thr        | Gln<br>265 | Pro        | Gly        | Ser        | Thr        | Pro<br>270 | Leu        | Ala        |
| Ser        | Phe        | Lys<br>275 | Ile        | Leu        | Ala        | Leu        | Glu<br>280 | Ser        | Ala        | Asp        | Gly        | His<br>285 | Gly        | Gly        | Cys        |

00673395 "122700



004221 5652960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ser | Ala | Gly | Asn | Asp | Ile | Gly | Pro | Tyr | Gly | Glu | Arg | Asp | Asp | Gln | Gln |  |
|     | 290 |     |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |  |
| Val | Phe | Ile | Gln | Lys | Val | Val | Pro | Ser | Ala | Ser | Gln | Leu | Phe | Val | Arg |  |
| 305 |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |  |
| Leu | Ser | Ser | Thr | Gly | Gln | Arg | Val | Cys | Ser | Val | Arg | Ser | Val | Asp | Gly |  |
|     |     |     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |  |
| Ser | Pro | Thr | Thr | Ala | Phe | Thr | Val | Leu | Glu | Cys | Glu | Gly | Ser | Arg | Arg |  |
|     |     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |  |
| Leu | Gly | Ser | Arg | Pro | Arg | Arg | Tyr | Leu | Leu | Thr | Gly | Gln | Ala | Asn | Gly |  |
|     |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |  |
| Ser | Leu | Ala | Met | Trp | Asp | Leu | Thr | Thr | Ala | Met | Asp | Gly | Leu | Gly | Gln |  |
|     | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |  |
| Ala | Pro | Ala | Gly | Gly | Leu | Thr | Glu | Gln | Glu | Leu | Met | Glu | Gln | Leu | Glu |  |
| 385 |     |     |     |     | 390 |     |     |     |     | 395 |     |     |     |     | 400 |  |
| His | Cys | Glu | Leu | Ala | Pro | Pro | Ala | Pro | Ser | Ala | Pro | Ser | Trp | Gly | Cys |  |
|     |     |     |     | 405 |     |     |     |     | 410 |     |     |     |     | 415 |     |  |
| Leu | Pro | Ser | Pro | Ser | Pro | Arg | Ile | Ser | Leu | Thr | Ser | Leu | His | Ser | Ala |  |
|     |     |     | 420 |     |     |     |     | 425 |     |     |     |     | 430 |     |     |  |
| Ser | Ser | Asn | Thr | Ser | Leu | Ser | Gly | His | Arg | Gly | Ser | Pro | Ser | Pro | Pro |  |
|     |     | 435 |     |     |     |     | 440 |     |     |     |     | 445 |     |     |     |  |
| Gln | Ala | Glu | Ala | Arg | Arg | Arg | Gly | Gly | Gly | Ser | Phe | Val | Glu | Arg | Cys |  |
|     | 450 |     |     |     |     | 455 |     |     |     |     | 460 |     |     |     |     |  |
| Gln | Glu | Leu | Val | Arg | Ser | Gly | Pro | Asp | Leu | Arg | Arg | Pro | Pro | Thr | Pro |  |
| 465 |     |     |     |     | 470 |     |     |     |     | 475 |     |     |     |     | 480 |  |
| Ala | Pro | Trp | Pro | Ser | Ser | Gly | Leu | Gly | Thr | Pro | Leu | Thr | Pro | Pro | Lys |  |
|     |     |     |     | 485 |     |     |     |     | 490 |     |     |     |     | 495 |     |  |
| Met | Lys | Leu | Asn | Glu | Thr | Ser | Phe |     |     |     |     |     |     |     |     |  |
|     |     |     | 500 |     |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 155  
 <211> 289  
 <212> PRT  
 <213> homo sapiens

<400> 155

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Gly | Gln | Pro | Ala | Arg | Pro | Gly | Ala | Met | Ala | Ala | Ala | Ala | Thr | Ala | Ala |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Glu | Gly | Val | Pro | Ser | Arg | Gly | Pro | Pro | Gly | Glu | Val | Ile | His | Leu | Asn |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     | 30  |     |     |     |  |
| Val | Gly | Gly | Lys | Arg | Phe | Ser | Thr | Ser | Arg | Gln | Thr | Leu | Thr | Trp | Ile |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Pro | Asp | Ser | Phe | Phe | Ser | Ser | Leu | Leu | Ser | Gly | Arg | Ile | Ser | Thr | Leu |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Lys | Asp | Glu | Thr | Gly | Ala | Ile | Phe | Ile | Asp | Arg | Asp | Pro | Thr | Val | Phe |  |

00673395 "122700

| 65         |            |            |            |            | 70         |            |            |            |            | 75         |            |            |            |            | 80         |  |  |  |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|--|--|--|
| Ala        | Pro        | Ile        | Leu        | Asn<br>85  | Phe        | Leu        | Arg        | Thr        | Lys<br>90  | Glu        | Leu        | Asp        | Pro        | Arg<br>95  | Gly        |  |  |  |  |
| Val        | His        | Gly        | Ser<br>100 | Ser        | Leu        | Leu        | His        | Glu<br>105 | Ala        | Gln        | Phe        | Tyr        | Gly<br>110 | Leu        | Thr        |  |  |  |  |
| Pro        | Leu        | Val<br>115 | Arg        | Arg        | Leu        | Gln        | Leu<br>120 | Arg        | Glu        | Glu        | Leu        | Asp<br>125 | Arg        | Ser        | Ser        |  |  |  |  |
| Cys        | Gly<br>130 | Asn        | Val        | Leu        | Phe        | Asn<br>135 | Gly        | Tyr        | Leu        | Pro        | Pro<br>140 | Pro        | Val        | Phe        | Pro        |  |  |  |  |
| Val<br>145 | Lys        | Arg        | Arg        | Asn        | Arg<br>150 | His        | Ser        | Leu        | Val        | Gly<br>155 | Pro        | Gln        | Gln        | Leu        | Gly<br>160 |  |  |  |  |
| Gly        | Arg        | Pro        | Ala        | Pro<br>165 | Val        | Arg        | Arg        | Ser        | Asn<br>170 | Thr        | Met        | Pro        | Pro        | Asn<br>175 | Leu        |  |  |  |  |
| Gly        | Asn        | Ala        | Gly<br>180 | Leu        | Leu        | Gly        | Arg        | Met<br>185 | Leu        | Asp        | Glu        | Lys        | Thr<br>190 | Pro        | Pro        |  |  |  |  |
| Ser        | Pro        | Ser<br>195 | Gly        | Gln        | Pro        | Glu        | Glu<br>200 | Pro        | Gly        | Met        | Val        | Arg<br>205 | Leu        | Val        | Cys        |  |  |  |  |
| Gly        | His<br>210 | His        | Asn        | Trp        | Ile        | Ala<br>215 | Val        | Ala        | Tyr        | Thr        | Gln<br>220 | Phe        | Leu        | Val        | Cys        |  |  |  |  |
| Tyr<br>225 | Arg        | Leu        | Lys        | Glu        | Ala<br>230 | Ser        | Gly        | Gly        | Gln        | Leu<br>235 | Val        | Phe        | Ser        | Ser        | Pro<br>240 |  |  |  |  |
| Arg        | Leu        | Asp        | Trp        | Pro<br>245 | Met        | Arg        | Thr        | Thr        | Gly<br>250 | Ala        | Ser        | Gln        | Pro        | Gly<br>255 | Cys        |  |  |  |  |
| Met        | Val        | Gly        | Leu<br>260 | Trp        | Val        | Asn        | Met        | Thr<br>265 | Arg        | Trp        | Trp        | Gln        | Gln<br>270 | Pro        | Pro        |  |  |  |  |
| Ala        | Ala        | Arg<br>275 | Ser        | Cys        | Tyr        | Gly        | Leu<br>280 | Cys        | Arg        | Arg        | Lys        | Ala<br>285 | Val        | Ala        | Pro        |  |  |  |  |

Arg

<210> 156  
 <211> 161  
 <212> PRT  
 <213> homo sapiens

<400> 156

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Val<br>1 | Pro       | Gln       | Asp       | Gln<br>5 | Gly | Ile       | Pro       | Arg       | His<br>10 | His | Gly       | Ser       | Cys       | Val<br>15 | Val |
| Gln      | Lys       | Glu       | Val<br>20 | Ser      | Leu | Ser       | Phe       | Ile<br>25 | Leu       | Gly | Gly       | Val       | Arg<br>30 | Gly       | Val |
| Pro      | Arg       | Pro<br>35 | Leu       | Glu      | Gly | His       | Gly<br>40 | Ala       | Gly       | Val | Gly       | Gly<br>45 | Arg       | Arg       | Arg |
| Ser      | Gly<br>50 | Pro       | Leu       | Arg      | Thr | Ser<br>55 | Ser       | Trp       | Gln       | Arg | Ser<br>60 | Thr       | Lys       | Leu       | Pro |
| Pro      | Pro       | Arg       | Arg       | Arg      | Ala | Ser       | Ala       | Cys       | Gly       | Gly | Leu       | Gly       | Leu       | Pro       | Arg |

| 65         |            |            |            |           | 70         |            |            |            |           | 75         |            |            |            |           | 80         |  |  |  |  |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|--|--|--|--|
| Trp        | Pro        | Asp        | Lys        | Glu<br>85 | Val        | Leu        | Leu        | Glu        | Ala<br>90 | Glu        | Trp        | Arg        | Leu        | Val<br>95 | Arg        |  |  |  |  |
| Glu        | Met        | Arg        | Gly<br>100 | Glu       | Gly        | Leu        | Gly        | Arg<br>105 | Gln       | Pro        | His        | Glu        | Gly<br>110 | Ala       | Glu        |  |  |  |  |
| Gly        | Ala        | Gly<br>115 | Gly        | Ala       | Ser        | Ser        | Gln<br>120 | Cys        | Ser       | Ser        | Cys        | Ser<br>125 | Ile        | Ser       | Ser        |  |  |  |  |
| Cys        | Ser<br>130 | Val        | Arg        | Pro       | Pro        | Ala<br>135 | Gly        | Ala        | Trp       | Pro        | Arg<br>140 | Pro        | Ser        | Met       | Ala        |  |  |  |  |
| Val<br>145 | Val        | Arg        | Ser        | His       | Met<br>150 | Ala        | Lys        | Leu        | Pro       | Leu<br>155 | Ala        | Trp        | Pro        | Val       | Ser<br>160 |  |  |  |  |
| Arg        |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |  |  |  |  |

<210> 157  
 <211> 262  
 <212> PRT  
 <213> homo sapiens

<400> 157

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gln<br>1   | Leu        | Trp        | Gly        | Phe<br>5   | Ala        | Ala        | Gly        | Ser        | Asp<br>10  | Ser        | Arg        | Pro        | Ala        | Met<br>15  | Gly        |
| Cys        | Asp        | Gly        | Gly<br>20  | Thr        | Ile        | Pro        | Lys        | Arg<br>25  | His        | Glu        | Leu        | Val        | Lys<br>30  | Gly        | Pro        |
| Lys        | Lys        | Val<br>35  | Glu        | Lys        | Val        | Asp        | Lys<br>40  | Asp        | Ala        | Glu        | Leu        | Val<br>45  | Ala        | Gln        | Trp        |
| Asn        | Tyr<br>50  | Cys        | Thr        | Leu        | Ser        | Gln<br>55  | Glu        | Ile        | Leu        | Arg        | Arg<br>60  | Pro        | Ile        | Val        | Ala        |
| Cys<br>65  | Glu        | Leu        | Gly        | Arg        | Leu<br>70  | Tyr        | Asn        | Lys        | Asp        | Ala<br>75  | Val        | Ile        | Glu        | Phe        | Leu<br>80  |
| Leu        | Asp        | Lys        | Ser        | Ala<br>85  | Glu        | Lys        | Ala        | Leu        | Gly<br>90  | Lys        | Ala        | Ala        | Ser        | His<br>95  | Ile        |
| Lys        | Ser        | Ile        | Lys<br>100 | Asn        | Val        | Thr        | Glu        | Leu<br>105 | Lys        | Leu        | Ser        | Asp        | Asn<br>110 | Pro        | Ala        |
| Trp        | Glu        | Gly<br>115 | Asp        | Lys        | Gly        | Asn        | Thr<br>120 | Lys        | Gly        | Asp        | Lys        | His<br>125 | Asp        | Asp        | Leu        |
| Gln        | Arg<br>130 | Ala        | Arg        | Phe        | Ile        | Cys<br>135 | Pro        | Val        | Val        | Gly        | Leu<br>140 | Glu        | Met        | Asn        | Gly        |
| Arg<br>145 | His        | Arg        | Phe        | Cys        | Phe<br>150 | Leu        | Arg        | Cys        | Cys        | Gly<br>155 | Cys        | Val        | Phe        | Ser        | Glu<br>160 |
| Arg        | Ala        | Leu        | Lys        | Glu<br>165 | Ile        | Lys        | Ala        | Glu        | Val<br>170 | Cys        | His        | Thr        | Cys        | Gly<br>175 | Ala        |
| Ala        | Phe        | Gln        | Glu<br>180 | Asp        | Asp        | Val        | Ile        | Val<br>185 | Leu        | Asn        | Gly        | Thr        | Lys<br>190 | Glu        | Asp        |
| Val        | Asp        | Val        | Leu        | Lys        | Thr        | Arg        | Met        | Glu        | Glu        | Arg        | Arg        | Leu        | Arg        | Ala        | Asn        |

002221"56EE2960

00673395-12700

| 195        |            |     |            |            |            | 200        |     |     |            |            |            | 205 |     |            |            |  |
|------------|------------|-----|------------|------------|------------|------------|-----|-----|------------|------------|------------|-----|-----|------------|------------|--|
| Trp        | Lys<br>210 | Arg | Lys        | Gln        | Arg        | Asn<br>215 | Pro | Arg | Gln        | Gln        | Ser<br>220 | Leu | Phe | Gln        | Asn        |  |
| Gln<br>225 | Met        | Ser | Val        | Lys        | Lys<br>230 | Pro        | Gln | Gly | His        | Gln<br>235 | Lys        | Leu | Arg | Gln        | Gly<br>240 |  |
| Ser        | Leu        | Lys | Lys        | Pro<br>245 | Ala        | Leu        | Ile | Leu | Glu<br>250 | Arg        | Arg        | Lys | Pro | Thr<br>255 | Trp        |  |
| Leu        | Pro        | Lys | Ala<br>260 | Gln        | Gln        |            |     |     |            |            |            |     |     |            |            |  |

<210> 158  
 <211> 138  
 <212> PRT  
 <213> homo sapiens

<400> 158

|           |            |            |            |           |           |            |            |            |           |           |           |            |            |           |           |
|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Cys<br>1  | His        | Arg        | Ala        | Gln<br>5  | Trp       | His        | Gln        | Gly        | Gly<br>10 | Cys       | Gly       | Arg        | Ala        | Glu<br>15 | Asp       |
| Lys       | Asp        | Gly        | Gly<br>20  | Glu       | Lys       | Ala        | Glu        | Ser<br>25  | Glu       | Leu       | Glu       | Lys        | Lys<br>30  | Thr       | Lys       |
| Lys       | Pro        | Lys<br>35  | Ala        | Ala       | Glu       | Ser        | Val<br>40  | Ser        | Lys       | Pro       | Asp       | Val<br>45  | Ser        | Glu       | Glu       |
| Ala       | Pro<br>50  | Gly        | Pro        | Ser       | Lys       | Val<br>55  | Lys        | Thr        | Gly       | Lys       | Pro<br>60 | Glu        | Glu        | Ala       | Ser       |
| Leu<br>65 | Asp        | Ser        | Arg        | Glu       | Lys<br>70 | Lys        | Thr        | Asn        | Leu       | Ala<br>75 | Pro       | Lys        | Ser        | Thr       | Ala<br>80 |
| Met       | Asn        | Glu        | Ser        | Ser<br>85 | Ser       | Gly        | Lys        | Ala        | Gly<br>90 | Lys       | Pro       | Pro        | Cys        | Gly<br>95 | Ala       |
| Thr       | Lys        | Arg        | Ser<br>100 | Ile       | Ala       | Asp        | Ser        | Glu<br>105 | Glu       | Ser       | Glu       | Ala        | Tyr<br>110 | Lys       | Ser       |
| Leu       | Phe        | Thr<br>115 | Thr        | His       | Ser       | Ser        | Ala<br>120 | Lys        | Arg       | Ser       | Lys       | Glu<br>125 | Glu        | Ser       | Ala       |
| His       | Trp<br>130 | Val        | Thr        | His       | Thr       | Ser<br>135 | Tyr        | Cys        | Phe       |           |           |            |            |           |           |

<210> 159  
 <211> 168  
 <212> PRT  
 <213> homo sapiens

<400> 159

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| His<br>1 | Leu | Val       | Leu       | Lys<br>5 | Gln | Thr | Leu       | Leu       | Pro<br>10 | Trp | Val | Ser       | Leu       | Phe<br>15 | Ser |
| Phe      | Pro | Ile       | Arg<br>20 | Ser      | Gln | Pro | Ser       | Leu<br>25 | Leu       | His | Pro | Cys       | Leu<br>30 | Gln       | His |
| Val      | His | Ile<br>35 | Leu       | Leu      | Gly | Ala | Ile<br>40 | Glu       | His       | Asp | Asp | Ile<br>45 | Ile       | Leu       | Leu |

|            |            |            |            |            |            |            |            |            |           |            |            |            |            |           |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|
| Glu        | Gly<br>50  | Ser        | Pro        | Thr        | Arg        | Val<br>55  | Ala        | Asn        | Phe       | Arg        | Phe<br>60  | Tyr        | Leu        | Phe       | Gln        |
| Gly<br>65  | Ser        | Leu        | Arg        | Lys        | His<br>70  | Thr        | Ala        | Ala        | Ala       | Pro<br>75  | Lys        | Glu        | Ala        | Glu       | Pro<br>80  |
| Val        | Ser        | Ala        | Val        | His<br>85  | Leu        | Gln        | Ala        | His        | Asn<br>90 | Gly        | Ala        | Asp        | Glu        | Thr<br>95 | Arg        |
| Pro        | Leu        | Glu        | Val<br>100 | Ile        | Val        | Leu        | Val        | Thr<br>105 | Phe       | Ser        | Val        | Ser        | Phe<br>110 | Ile       | Pro        |
| Phe        | Pro        | Gly<br>115 | Arg        | Ile        | Ile        | Arg        | Lys<br>120 | Leu        | Gln       | Leu        | Cys        | His<br>125 | Ile        | Leu       | Asn        |
| Ala        | Phe<br>130 | Asn        | Val        | Arg        | Cys        | Cys<br>135 | Leu        | Pro        | Lys       | Ser        | Leu<br>140 | Phe        | Cys        | Arg       | Phe        |
| Val<br>145 | Gln        | Glu        | Lys        | Phe        | Asn<br>150 | Asp        | Gly        | Ile        | Phe       | Val<br>155 | Ile        | Lys        | Ser        | Ala       | Lys<br>160 |
| Phe        | Thr        | Gly        | Asn        | Tyr<br>165 | Trp        | Ser        | Ser        |            |           |            |            |            |            |           |            |

```
<210> 160
<211> 238
<212> PRT
<213> homo sapiens
```

<400> 160

|            |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|
| His<br>1   | Gln        | Trp        | His        | Ile<br>5  | Thr        | Ala        | Met        | Gly        | Ser<br>10 | Gln        | His        | Ser        | Ala        | Ala<br>15 | Ala        |
| Arg        | Pro        | Ser        | Ser<br>20  | Cys       | Arg        | Arg        | Lys        | Gln<br>25  | Glu       | Asp        | Asp        | Arg        | Asp<br>30  | Gly       | Leu        |
| Leu        | Ala        | Glu<br>35  | Arg        | Glu       | Gln        | Glu        | Glu<br>40  | Ala        | Ile       | Ala        | Gln        | Phe<br>45  | Pro        | Tyr       | Val        |
| Glu        | Phe<br>50  | Thr        | Gly        | Arg       | Asp        | Ser<br>55  | Ile        | Thr        | Cys       | Leu        | Thr<br>60  | Cys        | Gln        | Gly       | Thr        |
| Gly<br>65  | Tyr        | Ile        | Pro        | Thr       | Glu<br>70  | Gln        | Val        | Asn        | Glu       | Leu<br>75  | Val        | Ala        | Leu        | Ile       | Pro<br>80  |
| His        | Ser        | Asp        | Gln        | Arg<br>85 | Leu        | Arg        | Pro        | Gln        | Arg<br>90 | Thr        | Lys        | Gln        | Tyr        | Val<br>95 | Leu        |
| Leu        | Ser        | Ile        | Leu<br>100 | Leu       | Cys        | Leu        | Leu        | Ala<br>105 | Ser       | Gly        | Leu        | Val        | Val<br>110 | Phe       | Phe        |
| Leu        | Phe        | Pro<br>115 | His        | Ser       | Val        | Leu        | Val<br>120 | Asp        | Asp       | Asp        | Gly        | Ile<br>125 | Lys        | Val       | Val        |
| Lys        | Val<br>130 | Thr        | Phe        | Asn       | Lys        | Gln<br>135 | Asp        | Ser        | Leu       | Val        | Ile<br>140 | Leu        | Thr        | Ile       | Met        |
| Ala<br>145 | Thr        | Leu        | Lys        | Ile       | Arg<br>150 | Asn        | Ser        | Asn        | Phe       | Tyr<br>155 | Thr        | Val        | Ala        | Val       | Thr<br>160 |
| Ser        | Leu        | Ser        | Ser        | Gln       | Ile        | Gln        | Tyr        | Met        | Asn       | Thr        | Val        | Val        | Asn        | Phe       | Thr        |

165

170

175

|            |            |            |            |     |            |            |            |            |     |            |            |            |            |     |     |
|------------|------------|------------|------------|-----|------------|------------|------------|------------|-----|------------|------------|------------|------------|-----|-----|
| Gly        | Lys        | Ala        | Glu<br>180 | Met | Gly        | Gly        | Pro        | Phe<br>185 | Ser | Tyr        | Val        | Tyr        | Phe<br>190 | Phe | Cys |
| Thr        | Val        | Pro<br>195 | Glu        | Ile | Leu        | Val        | His<br>200 | Asn        | Ile | Val        | Ile        | Phe<br>205 | Met        | Arg | Thr |
| Ser        | Val<br>210 | Lys        | Ile        | Ser | Tyr        | Ile<br>215 | Gly        | Leu        | Met | Thr        | Gln<br>220 | Ser        | Ser        | Leu | Glu |
| Thr<br>225 | His        | His        | Tyr        | Val | Asp<br>230 | Cys        | Gly        | Gly        | Asn | Ser<br>235 | Thr        | Ala        | Ile        |     |     |

&lt;210&gt; 161

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; homo sapiens

&lt;400&gt; 161

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ser<br>1  | Ser       | His       | Glu       | Asp<br>5  | His       | Tyr       | Val       | Val       | His<br>10 | Gln       | Asp       | Leu       | Arg       | Tyr<br>15 | Arg       |
| Ala       | Glu       | Glu       | Val<br>20 | His       | Ile       | Gly       | Lys       | Arg<br>25 | Ser       | Ser       | His       | Leu       | Gly<br>30 | Leu       | Pro       |
| Gly       | Lys       | Ile<br>35 | His       | His       | Cys       | Val       | His<br>40 | Val       | Leu       | Asn       | Leu       | Ala<br>45 | Gly       | Gln       | Ala       |
| Gly       | His<br>50 | Cys       | His       | Arg       | Val       | Glu<br>55 | Val       | Gly       | Val       | Pro       | Asp<br>60 | Phe       | Gln       | Gly       | Gly       |
| His<br>65 | Asp       | Gly       | Glu       | Asn       | Tyr<br>70 | Lys       | Gly       | Val       | Leu       | Leu<br>75 | Ile       | Lys       | Cys       | Asp       | Phe<br>80 |
| His       | His       | Phe       | Asp       | Ala<br>85 | Val       | Ile       | Ile       | His       | Lys<br>90 | Asp       |           |           |           |           |           |

&lt;210&gt; 162

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; homo sapiens

&lt;400&gt; 162

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Met<br>1  | Arg       | Lys       | Gln       | Glu<br>5  | Glu       | Asn       | His       | Gln       | Thr<br>10 | Arg       | Cys       | Gln       | Glu       | Thr<br>15 | Lys       |
| Gln       | Asp       | Gly       | Gln<br>20 | Glu       | Asp       | Ile       | Leu       | Leu<br>25 | Ser       | Ser       | Leu       | Arg       | Ala<br>30 | Gln       | Ser       |
| Leu       | Ile       | Thr<br>35 | Val       | Trp       | Asp       | Gln       | Ser<br>40 | His       | Gln       | Leu       | Ile       | Tyr<br>45 | Leu       | Leu       | Cys       |
| Trp       | Asn<br>50 | Val       | Ala       | Cys       | Pro       | Leu<br>55 | Ala       | Arg       | Glu       | Thr       | Gly<br>60 | Asp       | Ala       | Ile       | Ser       |
| Pro<br>65 | Gly       | Glu       | Phe       | His       | Ile<br>70 | Trp       | Glu       | Leu       | Ser       | Asn<br>75 | Gly       | Phe       | Phe       | Leu       | Leu<br>80 |
| Ser       | Phe       | Ser       | Gln       | Gln<br>85 | Thr       | Val       | Pro       | Val       | Ile<br>90 | Phe       | Leu       | Leu       | Ser       | Pro<br>95 | Ala       |

09673395-123700

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Gly | Ala | Ser | Ser | Ser | Gly | Met | Leu | Arg | Pro | His | Gly | Arg | Asp |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Met | Pro | Leu | Val | Ser | Cys | Pro | Ala | Ser | Ser | Val | Gly | Gly | Ala | Ala | Arg |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Thr | Gln | Arg | Ala | Gly |     |     |     |     |     |     |     |     |     |     |     |
|     | 130 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 163  
 <211> 91  
 <212> PRT  
 <213> homo sapiens

<400> 163

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Gly | Ala | Ala | Gly | Pro | His | Arg | Arg | Arg | His | Pro | Leu | His | Pro |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser | Leu | Leu | Arg | Glu | His | His | Ser | Gln | Ala | Gln | Ala | Pro | Glu | Gly | Val |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Arg | Pro | Gly | Gln | Ser | Thr | Leu | Ser | Arg | Ile | Glu | Ala | Val | Gln | Pro | Gln |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Leu | Pro | Arg | Pro | Ser | Gly | Leu | Pro | Ser | Leu | Trp | Gly | Trp | Leu | Pro | Trp |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Leu | Leu | Gly | Thr | Arg | Pro | Gln | Arg | His | Pro | Glu | Ile | Pro | Pro | Glu | Thr |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Gln | Cys | Ala | Ser | Thr | Ala | Val | Arg | Arg | Ser | Ala |     |     |     |     |     |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     |     |     |

<210> 164  
 <211> 174  
 <212> PRT  
 <213> homo sapiens

<400> 164

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asp | Asn | Pro | Thr | Gln | Arg | Asn | Lys | Asp | Gln | Leu | Ile | Arg | Ala | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Val | Lys | Phe | Leu | Asp | Thr | Asp | Thr | Ile | Cys | Tyr | Arg | Val | Glu | Glu | Pro |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Glu | Thr | Leu | Val | Glu | Leu | Gln | Arg | Asn | Glu | Trp | Asp | Pro | Ile | Ile | Glu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Trp | Ala | Glu | Lys | Arg | Tyr | Gly | Val | Glu | Ile | Ser | Ser | Ser | Thr | Ser | Ile |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Met | Gly | Pro | Ser | Ile | Pro | Ala | Lys | Thr | Arg | Glu | Val | Leu | Val | Ser | His |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Leu | Ala | Ser | Tyr | Asn | Thr | Trp | Ala | Leu | Gln | Gly | Ile | Glu | Phe | Val | Ala |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Ala | Gln | Leu | Lys | Ser | Met | Val | Leu | Thr | Leu | Gly | Leu | Ile | Asp | Leu | Arg |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |

00673395.122700

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Thr | Val | Glu | Gln | Ala | Val | Leu | Leu | Ser | Arg | Leu | Glu | Glu | Glu | Tyr |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Gln | Ile | Gln | Lys | Trp | Gly | Asn | Ile | Glu | Trp | Ala | His | Asp | Tyr | Glu | Leu |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Gln | Glu | Leu | Arg | Ala | Arg | Thr | Ala | Ala | Gly | Thr | Leu | Phe | Ile | His | Leu |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Cys | Ser | Glu | Ser | Thr | Thr | Val | Lys | His | Lys | Leu | Leu | Lys | Glu |     |     |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     |     |     |

<210> 165  
 <211> 66  
 <212> PRT  
 <213> homo sapiens

<400> 165

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Leu | Gly | Leu | Leu | His | Pro | Val | Ala | Asp | Gly | Val | Gly | Val | Gln | Lys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | His | Gly | Cys | Pro | Asp | Gln | Leu | Ile | Leu | Val | Ser | Leu | Gly | Trp | Val |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Val | Gln | Ser | Arg | Val | Ala | Gln | Cys | Gly | Gln | Val | His | Gly | Val | Val | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Asp | Gly | Ile | Leu | Leu | Gly | Ile | Pro | Leu | Ser | Thr | Leu | Cys | Thr | Cys | Gln |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Gly | Leu |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 166  
 <211> 132  
 <212> PRT  
 <213> homo sapiens

<400> 166

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Trp | Arg | Glu | Thr | Glu | Ile | Lys | Glu | Gln | Leu | Thr | Glu | His | Leu | Cys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Thr | Ile | Ile | Gln | Gln | Asn | Glu | Leu | Arg | Lys | Ala | Lys | Lys | Leu | Glu | Glu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | Met | Gln | Gln | Leu | Asp | Val | Glu | Ala | Asp | Glu | Glu | Thr | Leu | Glu | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Glu | Val | Glu | Val | Glu | Arg | Leu | Leu | His | Glu | Gln | Glu | Val | Glu | Ser | Arg |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Arg | Pro | Val | Val | Arg | Leu | Glu | Arg | Pro | Phe | Gln | Pro | Ala | Glu | Glu | Ser |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Val | Thr | Leu | Glu | Phe | Ala | Lys | Glu | Asn | Arg | Lys | Cys | Gln | Glu | Gln | Ala |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Val | Ser | Pro | Lys | Val | Asp | Asp | Gln | Cys | Gly | Asn | Ser | Ser | Ser | Ile | Pro |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Phe | Leu | Ser | Pro | Asn | Cys | Pro | Asn | Gln | Glu | Gly | Asn | Asp | Ile | Ser | Ala |

0067395-12200



004221" 56EE7960

115

120

125

Ala Leu Ala Thr  
130

<210> 167  
<211> 67  
<212> PRT  
<213> homo sapiens

<400> 167

|           |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Gln<br>1  | Ile       | Leu       | Met       | Ser<br>5 | His | Ser       | Pro       | Pro       | Gln<br>10 | Ala | Glu       | Met       | Ala       | Ser<br>15 | Leu |
| Asn       | Glu       | Pro       | Leu<br>20 | Val      | Ser | Leu       | Ile       | Leu<br>25 | Leu       | Leu | Val       | Arg       | Val<br>30 | Ala       | Ile |
| Ser       | Arg       | Pro<br>35 | Pro       | Pro      | Gln | Ala       | Pro<br>40 | Lys       | Ser       | Leu | His       | Arg<br>45 | Leu       | Leu       | His |
| Leu       | Val<br>50 | Val       | Ala       | Ser      | Thr | Pro<br>55 | Pro       | Thr       | Ser       | Trp | Pro<br>60 | Phe       | Gly       | Ala       | His |
| Phe<br>65 | Ala       | Val       |           |          |     |           |           |           |           |     |           |           |           |           |     |

<210> 168  
<211> 74  
<212> PRT  
<213> homo sapiens

<400> 168

|           |     |           |           |          |           |           |           |           |           |     |           |           |           |           |     |
|-----------|-----|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Asn<br>1  | Gly | Leu       | Ser       | Lys<br>5 | Arg       | Thr       | Thr       | Gly       | Leu<br>10 | Leu | Asp       | Ser       | Thr       | Ser<br>15 | Cys |
| Ser       | Cys | Ser       | Asn<br>20 | Leu      | Ser       | Thr       | Ser       | Thr<br>25 | Ser       | Ser | Ser       | Lys       | Val<br>30 | Ser       | Ser |
| Ser       | Ala | Ser<br>35 | Thr       | Ser      | Ser       | Cys       | Cys<br>40 | Ile       | Asn       | Ser | Ser       | Asn<br>45 | Phe       | Leu       | Ala |
| Phe<br>50 | Arg | Ser       | Ser       | Phe      | Cys       | Cys<br>55 | Met       | Ile       | Val       | Gln | Arg<br>60 | Cys       | Ser       | Val       | Ser |
| Cys<br>65 | Ser | Phe       | Ile       | Ser      | Val<br>70 | Ser       | Arg       | His       | Glu       |     |           |           |           |           |     |

<210> 169  
<211> 89  
<212> PRT  
<213> homo sapiens

<400> 169

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Gly<br>1 | Arg | Gly | Gly       | Leu<br>5 | Gly | Cys | Arg | Ser       | Trp<br>10 | Arg | Cys | Ala | Gly       | Ser<br>15 | Ser |
| Arg      | Pro | Tyr | Ser<br>20 | Glu      | Val | Phe | Ser | Val<br>25 | Ala       | Leu | Leu | Glu | Arg<br>30 | Gly       | Ser |
| Ser      | Cys | Ile | Leu       | Arg      | Ile | Phe | Cys | Ile       | Ser       | Ala | Pro | Phe | Ser       | Ser       | Arg |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|     |     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |  |
| Cys | His | Arg | Met | Pro | Gln | Ile | Gly | Pro | Val | Pro | Ser | Val | Asn | Gln | Thr |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Ser | Glu | Thr | Ala | Ser | Leu | Gln | Gly | Gln | Ser | Pro | Ser | Thr | Asp | Glu | Leu |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Glu | Arg | Asp | Ser | Glu | Met | Gln | Arg | Pro |     |     |     |     |     |     |     |  |
|     |     |     |     | 85  |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 170  
 <211> 74  
 <212> PRT  
 <213> homo sapiens

<400> 170

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Gly | Pro | Leu | His | Phe | Arg | Ile | Pro | Leu | Lys | Leu | Ile | Cys | Thr | Trp | Thr |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Leu | Thr | Leu | Lys | Arg | Gly | Gly | Phe | Arg | Ser | Leu | Ile | His | Arg | Gly | Asp |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Arg | Thr | Tyr | Leu | Gly | His | Pro | Met | Ala | Ala | Arg | Arg | Glu | Gly | Ser | Arg |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Asn | Ala | Lys | Tyr | Ser | Gln | Asp | Ala | Gly | Gly | Thr | Pro | Leu | Lys | Glu | Arg |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| His | Gly | Glu | Asn | Phe | Arg | Val | Arg | Ala | Arg |     |     |     |     |     |     |  |
| 65  |     |     |     |     | 70  |     |     |     |     |     |     |     |     |     |     |  |

<210> 171  
 <211> 89  
 <212> PRT  
 <213> homo sapiens

<400> 171

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ala | Val | Ala | Phe | Gln | Asn | Pro | Ser | Gln | Ala | His | Leu | Tyr | Leu | Asp | Ser |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Asp | Pro | Glu | Ala | Arg | Arg | Phe | Pro | Lys | Ser | Asp | Ser | Pro | Arg | Gly | Gln |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Asp | Leu | Phe | Gly | Ala | Ser | Asp | Gly | Ser | Glu | Lys | Arg | Arg | Glu | Pro | Lys |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Cys | Lys | Ile | Phe | Ser | Arg | Cys | Arg | Arg | Asn | Pro | Ser | Gln | Gly | Ala | Pro |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Arg | Arg | Lys | Leu | Gln | Ser | Thr | Gly | Ala | Met | Ile | Gln | His | Asn | Ala | Arg |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Thr | Cys | Ser | Pro | Ala | His | Leu | Ser | Pro |     |     |     |     |     |     |     |  |
|     |     |     |     | 85  |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 172  
 <211> 100  
 <212> PRT  
 <213> homo sapiens

<400> 172

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Pro | Ala | Val | Leu | Gly | Asp | Gln | Pro | Pro | Ser | Ala | Ser | Gly | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Val | His | Arg | Lys | Leu | Ser | Leu | Glu | Val | Cys | Cys | Cys | Gln | Glu | Arg | Ala |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gln | Met | Gly | Pro | Val | Met | Ala | Ala | Thr | Ser | Thr | Ser | Cys | Gly | Arg | Ala |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Arg | Leu | Leu | Ala | Arg | Ser | Ala | Gln | Trp | Leu | Thr | Thr | Met | Leu | Ser | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ala | Ala | Val | Trp | Leu | Gly | Ser | Arg | Arg | Leu | Leu | Thr | Cys | Gly | Glu | Asn |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Pro | Ser | Tyr | Ala | Leu | Val | Ala | Phe | Leu | Cys | Leu | Ser | Arg | Glu | Ser | Pro |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Ser | Ala | Lys | Pro |     |     |     |     |     |     |     |     |     |     |     |     |
|     |     |     | 100 |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 173

<211> 495

<212> PRT

<213> homo sapiens

<400> 173

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Arg | Thr | Asn | Thr | Pro | Val | Glu | Thr | Trp | Lys | Gly | Ser | Lys | Gly | Lys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Gln | Ser | Tyr | Thr | Tyr | Ile | Ile | Glu | Glu | Asn | Thr | Thr | Thr | Ser | Phe | Thr |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Trp | Ala | Phe | Gln | Arg | Thr | Thr | Phe | His | Glu | Ala | Ser | Arg | Lys | Tyr | Thr |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Asn | Asp | Val | Ala | Lys | Ile | Tyr | Ser | Ile | Asn | Val | Thr | Asn | Val | Met | Asn |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Gly | Val | Ala | Ser | Tyr | Cys | Arg | Pro | Cys | Ala | Leu | Glu | Ala | Ser | Asp | Val |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Gly | Ser | Ser | Cys | Thr | Ser | Cys | Pro | Ala | Gly | Tyr | Tyr | Ile | Asp | Arg | Asp |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Ser | Gly | Thr | Cys | His | Ser | Cys | Pro | Pro | Asn | Thr | Ile | Leu | Lys | Ala | His |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Gln | Pro | Tyr | Gly | Val | Gln | Ala | Cys | Val | Pro | Cys | Gly | Pro | Gly | Thr | Lys |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Asn | Asn | Lys | Ile | His | Ser | Leu | Cys | Tyr | Asn | Asp | Cys | Thr | Phe | Ser | Arg |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Asn | Thr | Pro | Thr | Arg | Thr | Phe | Asn | Tyr | Asn | Phe | Ser | Ala | Leu | Ala | Asn |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Thr | Val | Thr | Leu | Ala | Gly | Gly | Pro | Ser | Phe | Thr | Ser | Lys | Gly | Leu | Lys |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |

002227-06662960

002227.562960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Phe | His | His | Phe | Thr | Leu | Ser | Leu | Cys | Gly | Asn | Gln | Gly | Arg | Lys |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Met | Ser | Val | Cys | Thr | Asp | Asn | Val | Thr | Asp | Leu | Arg | Ile | Pro | Glu | Gly |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Glu | Ser | Gly | Phe | Ser | Lys | Ser | Ile | Thr | Ala | Tyr | Val | Cys | Gln | Ala | Val |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Ile | Ile | Pro | Pro | Glu | Val | Thr | Gly | Tyr | Lys | Ala | Gly | Val | Ser | Ser | Gln |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |
| Pro | Val | Ser | Leu | Ala | Asp | Arg | Leu | Ile | Gly | Val | Thr | Thr | Asp | Met | Thr |
|     |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |
| Leu | Asp | Gly | Ile | Thr | Ser | Pro | Ala | Glu | Leu | Phe | His | Leu | Glu | Ser | Leu |
|     |     |     | 260 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |
| Gly | Ile | Pro | Asp | Val | Ile | Phe | Phe | Tyr | Arg | Ser | Asn | Asp | Val | Thr | Gln |
|     |     | 275 |     |     |     |     | 280 |     |     |     |     | 285 |     |     |     |
| Ser | Cys | Ser | Ser | Gly | Arg | Ser | Thr | Thr | Ile | Arg | Val | Arg | Cys | Ser | Pro |
|     | 290 |     |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |
| Gln | Lys | Thr | Val | Pro | Gly | Ser | Leu | Leu | Leu | Pro | Gly | Thr | Cys | Ser | Asp |
| 305 |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |
| Gly | Thr | Cys | Asp | Gly | Cys | Asn | Phe | His | Phe | Leu | Trp | Glu | Ser | Ala | Ala |
|     |     |     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |
| Ala | Cys | Pro | Leu | Cys | Ser | Val | Ala | Asp | Tyr | His | Ala | Ile | Val | Ser | Ser |
|     |     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |
| Cys | Val | Ala | Gly | Ile | Gln | Lys | Thr | Thr | Tyr | Val | Trp | Arg | Glu | Pro | Lys |
|     |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |
| Leu | Cys | Ser | Gly | Gly | Ile | Ser | Leu | Pro | Glu | Gln | Arg | Val | Thr | Ile | Cys |
|     | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |
| Lys | Thr | Ile | Asp | Phe | Trp | Leu | Lys | Val | Gly | Ile | Ser | Ala | Gly | Thr | Cys |
| 385 |     |     |     |     | 390 |     |     |     |     | 395 |     |     |     |     | 400 |
| Thr | Ala | Ile | Leu | Leu | Thr | Val | Leu | Thr | Cys | Tyr | Phe | Trp | Lys | Lys | Asn |
|     |     |     |     | 405 |     |     |     |     | 410 |     |     |     |     | 415 |     |
| Gln | Lys | Leu | Glu | Tyr | Lys | Tyr | Ser | Lys | Leu | Val | Met | Asn | Ala | Thr | Leu |
|     |     |     | 420 |     |     |     |     | 425 |     |     |     |     | 430 |     |     |
| Lys | Asp | Cys | Asp | Leu | Pro | Ala | Ala | Asp | Ser | Cys | Ala | Ile | Met | Glu | Gly |
|     |     | 435 |     |     |     |     | 440 |     |     |     |     | 445 |     |     |     |
| Glu | Asp | Val | Glu | Asp | Asp | Leu | Ile | Phe | Thr | Ser | Lys | Lys | Ser | Leu | Phe |
|     | 450 |     |     |     |     | 455 |     |     |     |     | 460 |     |     |     |     |
| Gly | Lys | Ile | Lys | Ser | Phe | Thr | Ser | Lys | Arg | Thr | Pro | Asp | Gly | Phe | Asp |
| 465 |     |     |     |     | 470 |     |     |     |     | 475 |     |     |     |     | 480 |
| Ser | Val | Pro | Leu | Lys | Thr | Ser | Ser | Gly | Gly | Pro | Asp | Met | Asp | Leu |     |
|     |     |     |     | 485 |     |     |     |     | 490 |     |     |     |     | 495 |     |

<210> 174  
 <211> 118  
 <212> PRT

<213> homo sapiens

<400> 174

|           |           |            |            |           |           |           |           |            |           |           |           |           |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Gly<br>1  | His       | Asn        | Glu        | Glu<br>5  | Ile       | Ser       | Ser       | Ser        | Gly<br>10 | Cys       | Cys       | Arg       | Met        | Leu<br>15 | Ala       |
| Pro       | Lys       | Ser        | Pro<br>20  | Gln       | Ala       | Cys       | Lys       | Gly<br>25  | Ala       | Met       | Gln       | Gly       | Glu<br>30  | Glu       | Ala       |
| Gly       | Glu       | Ala<br>35  | Gly        | Ser       | Ala       | Ser       | His<br>40 | Arg        | Ser       | Met       | Ser       | Gly<br>45 | Pro        | Pro       | Glu       |
| Asp       | Val<br>50 | Phe        | Ser        | Gly       | Thr       | Glu<br>55 | Ser       | Asn        | Pro       | Ser       | Gly<br>60 | Val       | Leu        | Leu       | Glu       |
| Val<br>65 | Asn       | Asp        | Leu        | Ile       | Phe<br>70 | Pro       | Lys       | Ser        | Asp       | Phe<br>75 | Leu       | Leu       | Val        | Lys       | Met<br>80 |
| Arg       | Ser       | Ser        | Ser        | Thr<br>85 | Ser       | Ser       | Pro       | Ser        | Met<br>90 | Met       | Ala       | Gln       | Leu        | Ser<br>95 | Ala       |
| Ala       | Gly       | Arg        | Ser<br>100 | Gln       | Ser       | Leu       | Arg       | Val<br>105 | Ala       | Phe       | Ile       | Thr       | Ser<br>110 | Leu       | Glu       |
| Tyr       | Leu       | Tyr<br>115 | Ser        | Ser       | Phe       |           |           |            |           |           |           |           |            |           |           |

<210> 175

<211> 172

<212> PRT

<213> homo sapiens

<400> 175

|           |            |            |            |           |           |            |            |            |           |           |            |            |            |           |           |
|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|
| Arg<br>1  | Asn        | Thr        | Arg        | Gly<br>5  | His       | Phe        | Arg        | Ala        | Cys<br>10 | Gln       | Arg        | Lys        | Leu        | Lys<br>15 | Pro       |
| Cys       | Ser        | Val        | Ser<br>20  | Thr       | Val       | Tyr        | Lys        | Phe<br>25  | Asn       | Arg       | Asn        | Ala        | Cys<br>30  | Gln       | Arg       |
| Gly       | Leu        | Phe<br>35  | Glu        | Lys       | Arg       | Val        | Pro<br>40  | Ser        | Glu       | Pro       | Val        | Leu<br>45  | Ser        | Val       | Gln       |
| Glu       | Lys<br>50  | Gly        | Val        | Leu       | Leu       | Lys<br>55  | Arg        | Lys        | Leu       | Ser       | Leu<br>60  | Leu        | Glu        | Gln       | Asp       |
| Val<br>65 | Ile        | Val        | Asn        | Glu       | Asp<br>70 | Gly        | Arg        | Asn        | Lys       | Leu<br>75 | Lys        | Lys        | Gln        | Gly       | Glu<br>80 |
| Thr       | Pro        | Asn        | Glu        | Val<br>85 | Cys       | Met        | Phe        | Ser        | Leu<br>90 | Ala       | Tyr        | Gly        | Asp        | Ile<br>95 | Pro       |
| Glu       | Glu        | Leu        | Ile<br>100 | Asp       | Val       | Ser        | Asp        | Phe<br>105 | Glu       | Cys       | Ser        | Leu        | Cys<br>110 | Met       | Arg       |
| Leu       | Phe        | Phe<br>115 | Glu        | Pro       | Val       | Thr        | Thr<br>120 | Pro        | Cys       | Gly       | His        | Ser<br>125 | Phe        | Cys       | Lys       |
| Asn       | Cys<br>130 | Leu        | Glu        | Arg       | Cys       | Leu<br>135 | Asp        | His        | Ala       | Pro       | Tyr<br>140 | Cys        | Pro        | Leu       | Cys       |
| Lys       | Glu        | Ser        | Leu        | Lys       | Glu       | Tyr        | Leu        | Ala        | Asp       | Arg       | Arg        | Tyr        | Cys        | Val       | Thr       |

09673395-122700



<213> homo sapiens

<400> 177

|           |            |            |            |           |           |           |            |            |           |           |           |            |            |           |           |  |
|-----------|------------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|--|
| His<br>1  | Ser        | Thr        | Ser        | Tyr<br>5  | Leu       | Leu       | Asp        | Thr        | Leu<br>10 | Leu       | Ser       | Phe        | Leu        | Cys<br>15 | Lys       |  |
| Glu       | Asp        | Asn        | Met<br>20  | Val       | His       | Asp       | Leu        | Asn<br>25  | Asn       | Ala       | Gln       | Asp        | Asn<br>30  | Ser       | Tyr       |  |
| Arg       | Thr        | Asn<br>35  | Val        | Arg       | Lys       | Gly       | Leu<br>40  | Leu        | Leu       | Ala       | Gln       | Lys<br>45  | Thr        | Thr       | Ser       |  |
| Cys       | Arg<br>50  | Glu        | Asn        | Thr       | Arg       | Asn<br>55 | Leu        | Arg        | His       | Arg       | Leu<br>60 | Ile        | Leu        | Leu       | Glu       |  |
| Tyr<br>65 | His        | His        | Lys        | Leu       | Arg<br>70 | Lys       | Thr        | Tyr        | Arg       | Leu<br>75 | His       | Trp        | Glu        | Phe       | Leu<br>80 |  |
| Leu       | Val        | Phe        | Ser        | Ala<br>85 | Tyr       | Phe       | Phe        | His        | Leu<br>90 | His       | Leu       | Gln        | Ser        | His<br>95 | Pro       |  |
| Val       | Leu        | Lys        | Glu<br>100 | Thr       | Thr       | Phe       | Phe        | Ser<br>105 | Ala       | Glu       | His       | Leu        | Phe<br>110 | Leu       | Glu       |  |
| Leu       | Thr        | Glu<br>115 | Gln        | Val       | Leu       | Arg       | Ala<br>120 | Leu        | Phe       | Phe       | Gln       | Thr<br>125 | Val        | Leu       | Ser       |  |
| Gly       | Arg<br>130 | His        | Phe        | Cys       |           |           |            |            |           |           |           |            |            |           |           |  |

<210> 178

<211> 152

<212> PRT

<213> homo sapiens

<400> 178

|           |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |  |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|--|
| Ser<br>1  | Ala       | Val        | Lys        | Arg<br>5  | Gly       | Trp       | Asp        | Leu        | Asn<br>10 | Met       | Ala       | Ala        | Val        | Val<br>15 | Ala       |  |
| Ala       | Thr       | Ala        | Leu<br>20  | Lys       | Gly       | Arg       | Gly        | Ala<br>25  | Arg       | Asn       | Ala       | Arg        | Val<br>30  | Leu       | Arg       |  |
| Gly       | Ile       | Leu<br>35  | Ala        | Gly       | Ala       | Thr       | Ala<br>40  | Asn        | Lys       | Ala       | Ser       | His<br>45  | Asn        | Arg       | Thr       |  |
| Arg       | Ala<br>50 | Leu        | Gln        | Ser       | His       | Ser<br>55 | Ser        | Pro        | Glu       | Gly       | Lys<br>60 | Glu        | Glu        | Pro       | Glu       |  |
| Pro<br>65 | Leu       | Ser        | Pro        | Glu       | Leu<br>70 | Glu       | Tyr        | Ile        | Pro       | Arg<br>75 | Lys       | Arg        | Gly        | Lys       | Asn<br>80 |  |
| Pro       | Met       | Lys        | Ala        | Val<br>85 | Gly       | Leu       | Ala        | Trp        | Ala<br>90 | Ile       | Gly       | Phe        | Pro        | Cys<br>95 | Gly       |  |
| Ile       | Leu       | Leu        | Phe<br>100 | Ile       | Leu       | Thr       | Lys        | Arg<br>105 | Glu       | Val       | Asp       | Lys        | Asp<br>110 | Arg       | Val       |  |
| Lys       | Gln       | Met<br>115 | Lys        | Ala       | Arg       | Gln       | Asn<br>120 | Met        | Arg       | Leu       | Ser       | Asn<br>125 | Thr        | Gly       | Glu       |  |
| Tyr       | Glu       | Ser        | Gln        | Arg       | Phe       | Arg       | Ala        | Ser        | Ser       | Gln       | Ser       | Ala        | Pro        | Ser       | Pro       |  |

00673395-122700

130

135

140

Asp Val Gly Ser Gly Val Gln Thr  
145 150

<210> 179  
<211> 114  
<212> PRT  
<213> homo sapiens

<400> 179

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Gly | Arg | Ser | Ala | Pro | Gln | Val | Cys | Thr | Pro | Asp | Pro | Thr | Ser | Gly |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Asp | Gly | Ala | Leu | Trp | Glu | Glu | Ala | Leu | Asn | Leu | Trp | Leu | Ser | Tyr | Ser |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Pro | Val | Leu | Asp | Asn | Arg | Met | Phe | Cys | Arg | Ala | Phe | Ile | Cys | Phe | Thr |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Arg | Ser | Leu | Ser | Thr | Ser | Arg | Leu | Val | Arg | Met | Lys | Arg | Arg | Ile | Pro |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Gln | Gly | Lys | Pro | Met | Ala | Gln | Ala | Ser | Pro | Thr | Ala | Phe | Met | Gly | Phe |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Leu | Pro | Leu | Phe | Leu | Gly | Met | Tyr | Ser | Ser | Ser | Gly | Asp | Arg | Gly | Ser |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Gly | Ser | Ser | Leu | Pro | Ser | Gly | Glu | Leu | Trp | Leu | Cys | Arg | Ala | Arg | Val |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Leu | Leu |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 180  
<211> 126  
<212> PRT  
<213> homo sapiens

<400> 180

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Ala | Thr | Ala | Trp | Ala | Ser | Cys | Ala | Leu | Trp | Trp | Thr | Ser | Glu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ala | Arg | Thr | Gly | Ile | Trp | Ala | Lys | Pro | Glu | Asp | Leu | Thr | Val | Asn | Ser |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | Gly | Gly | Ser | Gln | Arg | Ser | Ser | Gly | Leu | His | Pro | Arg | Pro | Asn | Ile |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Arg | Gly | Arg | Gly | Thr | Leu | Gly | Gly | Ser | Pro | Glu | Pro | Leu | Ala | Leu | Ile |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Leu | Ala | Arg | Val | Gly | Gln | Pro | His | Val | Leu | Pro | Ser | Leu | His | Leu | Leu |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| His | Thr | Val | Leu | Val | His | Phe | Pro | Leu | Gly | Glu | Asp | Glu | Glu | Glu | Asp |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Thr | Thr | Arg | Glu | Ala | Asp | Gly | Pro | Gly | Gln | Ser | His | Ser | Phe | His | Gly |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |

00/22T" 56EE/960



00673395-12700

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Ala | Pro | Leu | Ser | Gly | Asn | Val | Phe | Gln | Leu | Arg | Gly |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |

<210> 181  
 <211> 74  
 <212> PRT  
 <213> homo sapiens

<400> 181

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Lys | Cys | Pro | Lys | Gly | Glu | Phe | Ser | Phe | His | Ser | Asn | Lys | Asp |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg | Phe | Ala | His | Ser | Leu | Lys | Gln | Asn | Val | Ala | Met | Asn | Ile | Gln | Pro |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | His | Thr | Tyr | Lys | Asp | Val | Arg | Met | Ile | Pro | Pro | Thr | Lys | His | Thr |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| His | Ser | His | Thr | Arg | Thr | His | Thr | His | Met | His | Thr | Arg | Ala | Cys | Thr |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| His | Gly | His | Met | His | Thr | His | Thr | His | Thr |     |     |     |     |     |     |
| 65  |     |     |     |     | 70  |     |     |     |     |     |     |     |     |     |     |

<210> 182  
 <211> 84  
 <212> PRT  
 <213> homo sapiens

<400> 182

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Leu | Ile | Ser | Phe | Lys | Gln | Arg | Gln | Ile | Cys | Ala | Phe | Thr | Gln | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Glu | Cys | Gly | His | Glu | Tyr | Ser | Ala | Pro | Ala | Tyr | Ile | Gln | Arg | Cys | Thr |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| His | Asp | Ser | Pro | His | Gln | Ala | His | Thr | Gln | Ser | His | Thr | His | Thr | His |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Thr | His | Ala | His | Thr | Arg | Val | His | Thr | Arg | Thr | His | Ala | His | Thr | His |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ala | His | Val | Asn | Thr | Cys | Thr | His | Ala | His | Thr | Cys | Thr | His | Ala | His |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Thr | Asp | Thr | Leu |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 183  
 <211> 70  
 <212> PRT  
 <213> homo sapiens

<400> 183

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Cys | Pro | Cys | Val | His | Val | Cys | Thr | Cys | Val | His | Val | Cys | Met | Cys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | Arg | Val | Arg | Val | Cys | Val | His | Val | Ser | Val | Cys | Ala | Arg | Ala | Cys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Val | His | Val | Cys | Val | Cys | Ala | Cys | Val | Thr | Val | Cys | Val | Leu | Gly | Gly |

45

Gly His Ile Leu Leu Glu  
65 70

```
<210> 184
<211> 71
<212> PRT
<213> homo sapiens
```

<400> 184

Thr Val Lys Phe Leu Arg Arg Leu Lys Val Arg Gly Thr Lys Ala Gly  
1 5 10 15

Glu Ile Ser Leu Ser Pro Glu Glu Gly Glu Ala Asp Gly Ser Gln Gln  
20 25 30

Pro Ala Leu Phe Leu Arg Val Ile Phe Lys Phe Ala Asn Cys Ile Thr  
35 40 45

Gly Gly Pro Thr Phe Cys Phe Tyr Gln Glu Phe Phe Cys Ser Lys  
50 55 60

Thr    Leu    Val    Met    Gly    Ile    Phe  
65                                 70

```
<210> 185
<211> 55
<212> PRT
<213> homo sapiens
```

<400> 185

Tyr 1 Leu Asn Leu Gln 5 Ile Val Leu Gln 10 Glu Gly Leu Leu Ser Val 15 Phe

Ile Lys Ser Phe Ser Phe Val Gln Arg His Trp Leu Trp Glu Tyr Phe  
20 25 30

Glu Arg Val Arg Asn Ala Gly Ile Lys Arg Cys Cys Arg Leu Ile Leu  
35 40 45

Lys Val Leu Thr Glu Pro Val  
50 55

```
<210> 186
<211> 37
<212> PRT
<213> homo sapiens
```

<400> 186

Lys<sub>1</sub> Gln Gly Arg Leu<sub>5</sub> Leu Thr Ser Ile Cys<sub>10</sub> Phe Ser Leu Leu Arg<sub>15</sub> Thr

Lys Ala Asn Leu Pro Cys Phe Gly Ser Pro His Phe Gln Pro Ser Gln  
20 25 30

Glu Phe His Cys Ser

**SECRET**

<210> 187  
 <211> 37  
 <212> PRT  
 <213> homo sapiens

<400> 187

|          |     |           |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Ser<br>1 | Pro | Leu       | Leu       | Trp<br>5 | Phe | Pro | Ala | Leu       | Ser<br>10 | Ala | Phe | Ser | Gly       | Ile<br>15 | Ser |
| Leu      | Phe | Ile       | Ile<br>20 | Tyr      | Phe | His | Asp | Leu<br>25 | Ser       | Ala | Lys | Leu | Leu<br>30 | Ile       | Phe |
| Cys      | Arg | Lys<br>35 | Lys       | Val      |     |     |     |           |           |     |     |     |           |           |     |

<210> 188  
 <211> 100  
 <212> PRT  
 <213> homo sapiens

<400> 188

|           |           |           |            |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Met<br>1  | Pro       | Asp       | Phe        | Lys<br>5  | Ile       | Ala       | Arg       | Arg       | Lys<br>10 | Gln       | Thr       | Leu       | Arg       | Ile<br>15 | Lys       |
| Lys       | Ala       | Gly       | His<br>20  | Leu       | Leu       | Asn       | Pro       | Trp<br>25 | Leu       | His       | His       | Lys       | Ala<br>30 | Leu       | Gly       |
| Leu       | Gly       | Phe<br>35 | Leu        | Tyr       | Leu       | Ile       | Glu<br>40 | Val       | Phe       | Ser       | Val       | Ala<br>45 | Leu       | Gly       | Ala       |
| Val       | Cys<br>50 | Leu       | Ser        | Pro       | Thr       | Pro<br>55 | Lys       | Asp       | Ala       | Arg       | Lys<br>60 | Thr       | Ser       | Thr       | Ile       |
| Ser<br>65 | His       | Val       | Ala        | Thr       | Phe<br>70 | Thr       | Ser       | Met       | Pro       | His<br>75 | Lys       | Cys       | Leu       | Ser       | Glu<br>80 |
| Ser       | Pro       | Asn       | Ser        | Ala<br>85 | Phe       | Pro       | Gln       | Asn       | Lys<br>90 | Pro       | Asn       | Ala       | Ile       | Arg<br>95 | Gln       |
| Lys       | Lys       | Lys       | Lys<br>100 |           |           |           |           |           |           |           |           |           |           |           |           |

<210> 189  
 <211> 256  
 <212> PRT  
 <213> homo sapiens

<400> 189

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Arg<br>1 | Ser | Gln       | Ala       | Gly<br>5 | Pro | Glu | Ala       | Gly       | Gln<br>10 | Pro | Leu | Pro       | Gly       | Ser<br>15 | Gly |
| Lys      | Arg | Ser       | Ser<br>20 | Cys      | Cys | His | Cys       | Ser<br>25 | Ser       | Gly | Ala | Cys       | Ser<br>30 | Met       | Gly |
| Pro      | Leu | Pro<br>35 | Arg       | Thr      | Val | Glu | Leu<br>40 | Phe       | Tyr       | Asp | Val | Leu<br>45 | Ser       | Pro       | Tyr |
| Ser      | Trp | Leu       | Gly       | Phe      | Glu | Ile | Leu       | Cys       | Arg       | Tyr | Gln | Asn       | Ile       | Trp       | Asn |

002221 56E2960

002221"5622960

| 50         |            |            |            |            | 55         |            |            |            |            | 60         |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ile<br>65  | Asn        | Leu        | Gln        | Leu        | Arg<br>70  | Pro        | Ser        | Leu        | Ile        | Thr<br>75  | Gly        | Ile        | Met        | Lys        | Asp<br>80  |
| Ser        | Gly        | Asn        | Lys        | Pro<br>85  | Pro        | Gly        | Leu        | Leu        | Pro<br>90  | Arg        | Lys        | Gly        | Leu        | Tyr<br>95  | Met        |
| Ala        | Asn        | Asp        | Leu<br>100 | Lys        | Leu        | Leu        | Arg        | His<br>105 | His        | Leu        | Gln        | Ile        | Pro<br>110 | Ile        | His        |
| Phe        | Pro        | Lys<br>115 | Asp        | Phe        | Leu        | Ser        | Val<br>120 | Met        | Leu        | Glu        | Lys        | Gly<br>125 | Ser        | Leu        | Ser        |
| Ala        | Met<br>130 | Arg        | Phe        | Leu        | Thr        | Ala<br>135 | Val        | Asn        | Leu        | Glu        | His<br>140 | Pro        | Glu        | Met        | Leu        |
| Glu<br>145 | Lys        | Ala        | Ser        | Arg        | Glu<br>150 | Leu        | Trp        | Met        | Arg        | Val<br>155 | Trp        | Ser        | Arg        | Asn        | Glu<br>160 |
| Asp        | Ile        | Thr        | Glu        | Pro<br>165 | Gln        | Ser        | Ile        | Leu        | Ala<br>170 | Ala        | Ala        | Glu        | Lys        | Ala<br>175 | Gly        |
| Met        | Ser        | Ala        | Glu<br>180 | Gln        | Ala        | Gln        | Gly        | Leu<br>185 | Leu        | Glu        | Lys        | Ile        | Ala<br>190 | Thr        | Pro        |
| Lys        | Val        | Lys<br>195 | Asn        | Gln        | Leu        | Lys        | Glu<br>200 | Thr        | Thr        | Glu        | Ala        | Ala<br>205 | Cys        | Arg        | Tyr        |
| Gly        | Ala<br>210 | Phe        | Gly        | Leu        | Pro        | Ile<br>215 | Thr        | Val        | Ala        | His        | Val<br>220 | Asp        | Gly        | Gln        | Thr        |
| His<br>225 | Met        | Leu        | Phe        | Gly        | Ser<br>230 | Asp        | Arg        | Met        | Glu        | Leu<br>235 | Leu        | Ala        | His        | Leu        | Leu<br>240 |
| Gly        | Glu        | Lys        | Trp        | Met<br>245 | Gly        | Pro        | Ile        | Pro        | Pro<br>250 | Ala        | Val        | Asn        | Ala        | Arg<br>255 | Leu        |

<210> 190  
 <211> 196  
 <212> PRT  
 <213> homo sapiens

<400> 190

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ser<br>1  | Leu       | Ala       | Phe       | Thr<br>5  | Ala       | Gly       | Gly       | Ile       | Gly<br>10 | Pro       | Ile       | His       | Phe       | Ser<br>15 | Pro       |
| Ser       | Arg       | Cys       | Ala<br>20 | Ser       | Ser       | Ser       | Ile       | Arg<br>25 | Ser       | Glu       | Pro       | Asn       | Asn<br>30 | Met       | Trp       |
| Val       | Trp       | Pro<br>35 | Ser       | Thr       | Trp       | Ala       | Thr<br>40 | Val       | Met       | Gly       | Ser       | Pro<br>45 | Lys       | Ala       | Pro       |
| Tyr       | Leu<br>50 | Gln       | Ala       | Ala       | Ser       | Val<br>55 | Val       | Ser       | Leu       | Ser       | Trp<br>60 | Phe       | Phe       | Thr       | Phe       |
| Gly<br>65 | Val       | Ala       | Ile       | Phe       | Ser<br>70 | Arg       | Ser       | Pro       | Trp       | Ala<br>75 | Cys       | Ser       | Ala       | Asp       | Ile<br>80 |
| Pro       | Ala       | Phe       | Ser       | Ala<br>85 | Ala       | Ala       | Arg       | Met       | Leu<br>90 | Cys       | Gly       | Ser       | Val       | Met<br>95 | Ser       |

002227-5652960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ser        | Phe        | Leu        | Asp<br>100 | Gln        | Thr        | Arg        | Ile        | His<br>105 | Ser        | Ser        | Arg        | Asp        | Ala<br>110 | Phe        | Ser        |
| Ser        | Ile        | Ser<br>115 | Gly        | Cys        | Ser        | Lys        | Phe<br>120 | Thr        | Ala        | Val        | Arg        | Lys<br>125 | Arg        | Met        | Ala        |
| Asp        | Lys<br>130 | Leu        | Pro        | Phe        | Ser        | Ser<br>135 | Ile        | Thr        | Asp        | Lys        | Lys<br>140 | Ser        | Leu        | Gly        | Lys        |
| Trp<br>145 | Met        | Gly        | Ile        | Trp        | Arg<br>150 | Trp        | Cys        | Leu        | Arg        | Ser<br>155 | Phe        | Lys        | Ser        | Phe        | Ala<br>160 |
| Met        | Tyr        | Ser        | Pro        | Leu<br>165 | Arg        | Gly        | Ser        | Arg        | Pro<br>170 | Gly        | Gly        | Leu        | Phe        | Pro<br>175 | Leu        |
| Ser        | Phe        | Met        | Ile<br>180 | Pro        | Val        | Met        | Arg        | Leu<br>185 | Gly        | Arg        | Asn        | Cys        | Arg<br>190 | Leu        | Met        |
| Phe        | Gln        | Ile<br>195 | Phe        |            |            |            |            |            |            |            |            |            |            |            |            |

<210> 191  
 <211> 116  
 <212> PRT  
 <213> homo sapiens

<400> 191

|           |           |            |            |           |           |           |           |            |           |           |           |           |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Glu<br>1  | Gln       | Arg        | Ala        | Ser<br>5  | Ala       | Met       | Arg       | Ser        | Ser<br>10 | Arg       | Ala       | Phe       | Arg        | Thr<br>15 | Val       |
| Cys       | Ser       | Ser        | Trp<br>20  | Ala       | Thr       | His       | Gly       | Gln<br>25  | Leu       | Pro       | Ala       | Gly       | Leu<br>30  | Asp       | Asp       |
| Lys       | Thr       | Asn<br>35  | Ile        | Lys       | Thr       | Val       | Cys<br>40 | Thr        | Tyr       | Trp       | Glu       | Asp<br>45 | Phe        | His       | Ser       |
| Cys       | Thr<br>50 | Val        | Thr        | Ala       | Leu       | Thr<br>55 | Asp       | Cys        | Gln       | Glu       | Gly<br>60 | Ala       | Lys        | Asp       | Met       |
| Trp<br>65 | Asp       | Lys        | Leu        | Arg       | Lys<br>70 | Glu       | Ser       | Lys        | Asn       | Leu<br>75 | Asn       | Ile       | Gln        | Gly       | Ser<br>80 |
| Leu       | Phe       | Glu        | Leu        | Cys<br>85 | Gly       | Ser       | Gly       | Asn        | Gly<br>90 | Ala       | Ala       | Gly       | Ser        | Leu<br>95 | Leu       |
| Pro       | Ala       | Phe        | Pro<br>100 | Val       | Leu       | Leu       | Val       | Ser<br>105 | Leu       | Ser       | Ala       | Ala       | Leu<br>110 | Ala       | Thr       |
| Trp       | Leu       | Ser<br>115 | Phe        |           |           |           |           |            |           |           |           |           |            |           |           |

<210> 192  
 <211> 182  
 <212> PRT  
 <213> homo sapiens

<400> 192

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Lys<br>1 | Arg | Glu | Ser | Gly<br>5 | Phe | Pro | Thr | Ile | Leu<br>10 | Tyr | Glu | Cys | Phe | Gln<br>15 | His |
| His      | Arg | Glu | Ser | Gln      | Arg | Pro | Gln | Arg | Thr       | Asn | Gly | Ser | Ser | Ser       | Arg |

| 20         |            |            |            |            |            |            | 25         |            |            |            |            | 30         |            |            |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Phe        | Pro        | Gly<br>35  | Ala        | Trp        | Ser        | Glu        | Cys<br>40  | Gly        | Trp        | Ala        | Arg        | Gly<br>45  | Gly        | Ser        | Trp        |  |
| Pro        | His<br>50  | Ala        | Gln        | Lys        | Glu        | Ser<br>55  | Gln        | Val        | Ala        | Lys        | Ala<br>60  | Ala        | Glu        | Arg        | Asp        |  |
| Thr<br>65  | Arg        | Ser        | Thr        | Gly        | Asn<br>70  | Ala        | Gly        | Ser        | Arg        | Asp<br>75  | Pro        | Ala        | Ala        | Pro        | Leu<br>80  |  |
| Pro        | Leu        | Pro        | Gln        | Ser<br>85  | Ser        | Asn        | Lys        | Leu        | Pro<br>90  | Trp        | Met        | Leu        | Arg        | Phe<br>95  | Leu        |  |
| Asp        | Ser        | Phe        | Leu<br>100 | Ser        | Leu        | Ser        | His        | Ile<br>105 | Ser        | Phe        | Ala        | Pro        | Ser<br>110 | Trp        | Gln        |  |
| Ser        | Val        | Arg<br>115 | Ala        | Val        | Thr        | Val        | Gln<br>120 | Leu        | Trp        | Lys        | Ser        | Ser<br>125 | Gln        | Tyr        | Val        |  |
| His        | Thr<br>130 | Val        | Leu        | Met        | Phe        | Val<br>135 | Leu        | Ser        | Ser        | Arg        | Pro<br>140 | Ala        | Gly        | Ser        | Trp        |  |
| Pro<br>145 | Cys        | Val        | Ala        | Gln        | Leu<br>150 | Glu        | Gln        | Thr        | Val        | Arg<br>155 | Lys        | Ala        | Leu        | Glu        | Asp<br>160 |  |
| Arg        | Ile        | Ala        | Leu        | Ala<br>165 | Arg        | Cys        | Ser        | His        | Gly<br>170 | Leu        | His        | Gln        | Ile        | Arg<br>175 | Tyr        |  |
| Leu        | His        | Arg        | Glu<br>180 | Asp        | Gln        |            |            |            |            |            |            |            |            |            |            |  |

<210> 193  
 <211> 105  
 <212> PRT  
 <213> homo sapiens

<400> 193

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |  |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| His<br>1  | Leu       | Ala       | Asn        | Lys<br>5  | Thr       | Gln       | Glu       | Ile        | Lys<br>10 | Arg       | Asn       | Lys       | Lys       | Glu<br>15 | Asn       |  |
| Gln       | Asp       | Phe       | Pro<br>20  | Gln       | Ser       | Tyr       | Met       | Ser<br>25  | Val       | Phe       | Ser       | Ile       | Thr<br>30 | Glu       | Asn       |  |
| His       | Asn       | Val<br>35 | Pro        | Lys       | Glu       | Leu       | Met<br>40 | Asp        | Leu       | Pro       | Leu       | Asp<br>45 | Phe       | Arg       | Glu       |  |
| His       | Gly<br>50 | Val       | Ser        | Val       | Gly       | Gly<br>55 | Arg       | Ala        | Gly       | Gly       | Ala<br>60 | Gly       | Pro       | Thr       | Leu       |  |
| Arg<br>65 | Arg       | Lys       | Ala        | Arg       | Ser<br>70 | Leu       | Lys       | Leu        | Pro       | Arg<br>75 | Glu       | Thr       | Pro       | Gly       | Ala<br>80 |  |
| Pro       | Gly       | Thr       | Pro        | Gly<br>85 | Ala       | Gly       | Thr       | Pro        | Pro<br>90 | Pro       | Arg       | Cys       | Arg       | Cys<br>95 | Arg       |  |
| Arg       | Val       | Arg       | Ile<br>100 | Ser       | Cys       | Leu       | Gly       | Cys<br>105 |           |           |           |           |           |           |           |  |

<210> 194  
 <211> 426  
 <212> PRT

<213> homo sapiens

<400> 194

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Glu<br>1   | Ile        | Tyr        | Ser        | Leu<br>5   | Ser        | Arg        | Phe        | Ile        | Glu<br>10  | Val        | Lys        | Met        | Ser        | Lys<br>15  | Lys        |
| Ile        | Ser        | Gly        | Gly<br>20  | Ser        | Val        | Val        | Glu        | Met<br>25  | Gln        | Gly        | Asp        | Glu        | Met<br>30  | Thr        | Arg        |
| Ile        | Ile        | Trp<br>35  | Glu        | Leu        | Ile        | Lys        | Glu<br>40  | Lys        | Leu        | Ile        | Phe        | Pro<br>45  | Tyr        | Val        | Glu        |
| Leu        | Asp<br>50  | Leu        | His        | Ser        | Tyr        | Asp<br>55  | Leu        | Gly        | Ile        | Glu        | Asn<br>60  | Arg        | Asp        | Ala        | Thr        |
| Asn<br>65  | Asp        | Gln        | Val        | Thr        | Lys<br>70  | Asp        | Ala        | Ala        | Glu        | Ala<br>75  | Ile        | Lys        | Lys        | His        | Asn<br>80  |
| Val        | Gly        | Val        | Lys        | Cys<br>85  | Ala        | Thr        | Ile        | Thr        | Pro<br>90  | Asp        | Glu        | Lys        | Arg        | Val<br>95  | Glu        |
| Glu        | Phe        | Lys        | Leu<br>100 | Lys        | Gln        | Met        | Trp        | Lys<br>105 | Ser        | Pro        | Asn        | Gly        | Thr<br>110 | Ile        | Arg        |
| Asn        | Ile        | Leu<br>115 | Gly        | Gly        | Thr        | Val        | Phe<br>120 | Arg        | Glu        | Ala        | Ile        | Ile<br>125 | Cys        | Lys        | Asn        |
| Ile        | Pro<br>130 | Arg        | Leu        | Val        | Ser        | Gly<br>135 | Trp        | Val        | Lys        | Pro        | Ile<br>140 | Ile        | Ile        | Gly        | Arg        |
| His<br>145 | Ala        | Tyr        | Gly        | Asp        | Gln<br>150 | Tyr        | Arg        | Ala        | Thr        | Asp<br>155 | Phe        | Val        | Val        | Pro        | Gly<br>160 |
| Pro        | Gly        | Lys        | Val        | Glu<br>165 | Ile        | Thr        | Tyr        | Thr        | Pro<br>170 | Ser        | Asp        | Gly        | Thr        | Gln<br>175 | Lys        |
| Val        | Thr        | Tyr        | Leu<br>180 | Val        | His        | Asn        | Phe        | Glu<br>185 | Glu        | Gly        | Gly        | Gly        | Val<br>190 | Ala        | Met        |
| Gly        | Met        | Tyr<br>195 | Asn        | Gln        | Asp        | Lys        | Ser<br>200 | Ile        | Glu        | Asp        | Phe        | Ala<br>205 | His        | Ser        | Ser        |
| Phe        | Gln<br>210 | Met        | Ala        | Leu        | Ser        | Lys<br>215 | Gly        | Trp        | Pro        | Leu        | Tyr<br>220 | Leu        | Ser        | Thr        | Lys        |
| Asn<br>225 | Thr        | Ile        | Leu        | Lys        | Lys<br>230 | Tyr        | Asp        | Gly        | Arg        | Phe<br>235 | Lys        | Asp        | Ile        | Phe        | Gln<br>240 |
| Glu        | Ile        | Tyr        | Asp        | Lys<br>245 | Gln        | Tyr        | Lys        | Ser        | Gln<br>250 | Phe        | Glu        | Ala        | Gln        | Lys<br>255 | Ile        |
| Trp        | Tyr        | Glu        | His<br>260 | Arg        | Leu        | Ile        | Asp        | Asp<br>265 | Met        | Val        | Ala        | Gln        | Ala<br>270 | Met        | Lys        |
| Ser        | Glu        | Gly<br>275 | Gly        | Phe        | Ile        | Trp        | Ala<br>280 | Cys        | Lys        | Asn        | Tyr        | Asp<br>285 | Gly        | Asp        | Val        |
| Gln        | Ser<br>290 | Asp        | Ser        | Val        | Ala        | Gln<br>295 | Gly        | Tyr        | Gly        | Ser        | Leu<br>300 | Gly        | Met        | Met        | Thr        |
| Ser<br>305 | Val        | Leu        | Val        | Cys        | Pro<br>310 | Asp        | Gly        | Lys        | Thr        | Val<br>315 | Glu        | Ala        | Glu        | Ala        | Ala<br>320 |

002221" 56EE7960

00222T" 56EE2960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| His        | Gly        | Thr        | Val        | Thr<br>325 | Arg        | His        | Tyr        | Arg        | Met<br>330 | Tyr        | Gln        | Lys        | Gly        | Gln<br>335 | Glu        |
| Thr        | Ser        | Thr        | Asn<br>340 | Pro        | Ile        | Ala        | Ser        | Ile<br>345 | Phe        | Ala        | Trp        | Thr        | Arg<br>350 | Gly        | Leu        |
| Ala        | His        | Arg<br>355 | Ala        | Lys        | Leu        | Asp        | Asn<br>360 | Asn        | Lys        | Glu        | Leu        | Ala<br>365 | Phe        | Phe        | Ala        |
| Asn        | Ala<br>370 | Leu        | Glu        | Glu        | Val        | Ser<br>375 | Ile        | Glu        | Thr        | Ile        | Glu<br>380 | Ala        | Gly        | Phe        | Met        |
| Thr<br>385 | Lys        | Asp        | Leu        | Ala        | Ala<br>390 | Cys        | Ile        | Lys        | Gly        | Leu<br>395 | Pro        | Asn        | Val        | Gln        | Arg<br>400 |
| Ser        | Asp        | Tyr        | Leu        | Asn<br>405 | Thr        | Phe        | Glu        | Phe        | Met<br>410 | Asp        | Lys        | Leu        | Gly        | Glu<br>415 | Asn        |
| Leu        | Lys        | Ile        | Lys<br>420 | Leu        | Ala        | Gln        | Ala        | Lys<br>425 | Leu        |            |            |            |            |            |            |

<210> 195  
 <211> 97  
 <212> PRT  
 <213> homo sapiens

<400> 195

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Arg<br>1  | Leu       | Leu       | Pro       | Lys<br>5  | His       | Leu       | Gln       | Arg       | Arg<br>10 | Gln       | Ala       | Leu       | Tyr       | Cys<br>15 | Tyr       |
| Gln       | Ala       | Leu       | Leu<br>20 | Cys       | Gly       | Leu       | Thr       | Leu<br>25 | Trp       | Ser       | Arg       | Gln       | Lys<br>30 | Trp       | Lys       |
| Gln       | Trp       | Asp<br>35 | Trp       | Trp       | Thr       | Ser       | Pro<br>40 | Val       | Leu       | Ser       | Gly       | Thr<br>45 | Cys       | Gly       | Ser       |
| Asp       | Gly<br>50 | Leu       | Gln       | Ser       | Arg       | Gly<br>55 | Gln       | Pro       | Leu       | Leu       | Leu<br>60 | Leu       | Ser       | Cys       | His       |
| Leu<br>65 | Asp       | Lys       | Pro       | Ala       | Arg<br>70 | Trp       | Ser       | Ser       | Cys       | Arg<br>75 | Glu       | Ser       | His       | Thr       | Leu<br>80 |
| Gly       | Pro       | Gln       | Ser       | Pro<br>85 | Thr       | Ala       | Arg       | His       | His<br>90 | His       | Ser       | Phe       | Tyr       | Arg<br>95 | Pro       |

Arg

<210> 196  
 <211> 93  
 <212> PRT  
 <213> homo sapiens

<400> 196

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Leu<br>1 | Ile | Leu | Ile       | Ile<br>5 | His | Pro | His | Gly       | Asn<br>10 | Thr | Thr | Thr | Phe       | Phe<br>15 | Lys |
| Val      | Met | Tyr | Gln<br>20 | Val      | Cys | His | Leu | Leu<br>25 | Gly       | Ser | Val | Thr | Trp<br>30 | Cys       | Val |
| Gly      | Tyr | Leu | Tyr       | Phe      | Ser | Arg | Pro | Arg       | Asn       | Asn | Lys | Ile | Ser       | Cys       | Ser |



004227"5652960

| 35  |     |     |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Ile | Pro | Ile | Ser | Met | Thr | Thr | Tyr | Asp | Asp | Arg | Phe | Tyr | Pro |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ser | Thr | His | Lys | Pro | Gly | Asp | Ile | Phe | Ala | Asp | Asn | Gly | Phe | Ser | Glu |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Asp | Arg | Ala | Thr | Gln | Asn | Ile | Ser | Tyr | Gly | Ala | Ile | Trp |     |     |     |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     |     |     |

<210> 197  
 <211> 410  
 <212> PRT  
 <213> homo sapiens

<400> 197

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Asp | Gln | Pro | Asn | Ile | Gln | Ser | Val | Lys | Ile | His | Ser | Leu | Pro | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg | Asn | Pro | Asn | Lys | Gly | Cys | Glu | Cys | Pro | Pro | Arg | Arg | Asp | Gly | Phe |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gly | Phe | Ile | Lys | Cys | Val | Asp | Arg | Asp | Val | Arg | Met | Phe | Phe | His | Phe |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Glu | Ile | Leu | Asp | Gly | Asn | Gln | Leu | His | Ile | Ala | Asp | Glu | Val | Glu |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Phe | Thr | Val | Val | Pro | Asp | Met | Leu | Ser | Ala | Gln | Arg | Asn | His | Ala | Ile |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Arg | Ile | Lys | Lys | Leu | Pro | Lys | Gly | Thr | Val | Ser | Phe | His | Ser | His | Ser |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Asp | His | Arg | Phe | Leu | Gly | Thr | Val | Glu | Lys | Glu | Ala | Thr | Phe | Ser | Asn |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Pro | Lys | Thr | Thr | Ser | Pro | Asn | Lys | Gly | Lys | Glu | Lys | Glu | Ala | Glu | Asp |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Gly | Ile | Ile | Ala | Tyr | Asp | Asp | Cys | Gly | Val | Lys | Leu | Thr | Ile | Ala | Phe |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Gln | Ala | Lys | Asp | Val | Glu | Gly | Ser | Thr | Ser | Pro | Gln | Ile | Gly | Asp | Lys |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Val | Glu | Phe | Ser | Ile | Ser | Asp | Lys | Gln | Arg | Pro | Gly | Gln | Gln | Val | Ala |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Thr | Cys | Val | Arg | Leu | Leu | Gly | Arg | Asn | Ser | Asn | Ser | Lys | Arg | Leu | Leu |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Gly | Tyr | Val | Ala | Thr | Leu | Lys | Asp | Asn | Phe | Gly | Phe | Ile | Glu | Thr | Ala |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Asn | His | Asp | Lys | Glu | Ile | Phe | Phe | His | Tyr | Ser | Glu | Phe | Ser | Gly | Asp |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Val | Asp | Ser | Leu | Glu | Leu | Gly | Asp | Met | Val | Glu | Tyr | Ser | Leu | Ser | Lys |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |



<210> 199  
 <211> 85  
 <212> PRT  
 <213> homo sapiens

<400> 199

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Lys<br>1  | Ser       | His       | Thr       | Ser<br>5  | Cys       | Asn       | Leu       | Leu       | Ser<br>10 | Arg       | Pro       | Leu       | Phe       | Val<br>15 | Thr       |
| Asn       | Thr       | Lys       | Phe<br>20 | Asn       | Leu       | Ile       | Ser       | Tyr<br>25 | Leu       | Arg       | Arg       | Ser       | Arg<br>30 | Ser       | Phe       |
| His       | Ile       | Leu<br>35 | Gly       | Leu       | Lys       | Ser       | Asn<br>40 | Ser       | Gln       | Phe       | His       | Pro<br>45 | Thr       | Val       | Ile       |
| Ile       | Ser<br>50 | Asn       | Asn       | Ala       | Ile       | Leu<br>55 | Ser       | Leu       | Leu       | Leu       | Phe<br>60 | Ala       | Phe       | Ile       | Trp       |
| Ala<br>65 | Ser       | Gly       | Phe       | Arg       | Ile<br>70 | Gly       | Lys       | Ser       | Gly       | Phe<br>75 | Phe       | Phe       | Tyr       | Arg       | Ala<br>80 |
| Gln       | Lys       | Thr       | Val       | Ile<br>85 |           |           |           |           |           |           |           |           |           |           |           |

<210> 200  
 <211> 79  
 <212> PRT  
 <213> homo sapiens

<400> 200

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| Ala<br>1  | Thr       | Met       | Arg       | Leu<br>5 | Ser       | Val       | Cys       | Leu       | Leu<br>10 | Met       | Val       | Ser       | Leu       | Ala<br>15 | Leu |
| Cys       | Cys       | Tyr       | Gln<br>20 | Ala      | His       | Ala       | Leu       | Val<br>25 | Cys       | Pro       | Ala       | Val       | Ala<br>30 | Ser       | Glu |
| Ile       | Thr       | Val<br>35 | Phe       | Leu      | Phe       | Leu       | Ser<br>40 | Asp       | Ala       | Ala       | Val       | Asn<br>45 | Leu       | Gln       | Val |
| Ala       | Lys<br>50 | Leu       | Asn       | Pro      | Pro       | Pro<br>55 | Glu       | Ala       | Leu       | Ala       | Ala<br>60 | Lys       | Leu       | Glu       | Val |
| Lys<br>65 | His       | Cys       | Thr       | Asp      | Gln<br>70 | Ile       | Ser       | Phe       | Lys       | Lys<br>75 | Arg       | Leu       | Leu       | Ile       |     |

<210> 201  
 <211> 50  
 <212> PRT  
 <213> homo sapiens

<400> 201

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Ser<br>1 | Val | Gln       | Cys       | Phe<br>5 | Thr | Ser | Asn       | Leu       | Ala<br>10 | Ala | Arg | Ala       | Ser       | Gly<br>15 | Gly |
| Gly      | Leu | Ser       | Leu<br>20 | Ala      | Thr | Trp | Arg       | Phe<br>25 | Thr       | Ala | Ala | Ser       | Leu<br>30 | Lys       | Asn |
| Lys      | Lys | Thr<br>35 | Val       | Ile      | Ser | Glu | Ala<br>40 | Thr       | Ala       | Gly | Gln | Thr<br>45 | Arg       | Ala       | Trp |

00673355-12700

00673395-122700

Ala Trp  
50

<210> 202  
<211> 72  
<212> PRT  
<213> homo sapiens

<400> 202

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Val | Ala | Val | Glu | Lys | Thr | Leu | Glu | Thr | Gln | Val | Glu | His | Phe | Tyr |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Met | Ser | His | Thr | His | Ile | Phe | Ser | Leu | Phe | Pro | Pro | Arg | Thr | Phe | Ser |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Asn | Glu | Lys | Pro | Phe | Leu | Lys | Arg | Tyr | Leu | Ile | Gly | Ala | Val | Leu | His |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Phe | Gln | Leu | Gly | Cys | Lys | Ser | Phe | Trp | Arg | Trp | Ile | Lys | Phe | Gly | Asn |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Leu | Glu | Val | Tyr | Arg | Ser | Val | Thr |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     | 70  |     |     |     |     |     |     |     |     |     |     |

<210> 203  
<211> 53  
<212> PRT  
<213> homo sapiens

<400> 203

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Phe | Ser | Pro | Ser | Leu | Thr | Thr | Arg | Ala | Met | Asn | Ser | Ser | Ala | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser | Thr | Ser | Thr | Cys | Ser | Ser | Tyr | Thr | Leu | Gly | Thr | Arg | Leu | Pro | Val |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gly | Gly | Arg | Gly | Pro | Thr | Lys | Val | Thr | Cys | Cys | Thr | Ser | Asn | Arg | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Thr | Leu | Ser | Leu | Asp |     |     |     |     |     |     |     |     |     |     |     |
|     | 50  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 204  
<211> 121  
<212> PRT  
<213> homo sapiens

<400> 204

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Val | Val | Arg | Phe | Leu | Thr | Lys | Arg | Phe | Ile | Gly | Asp | Tyr | Glu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg | Asn | Ala | Gly | Asn | Leu | Tyr | Thr | Arg | Gln | Val | Gln | Ile | Glu | Gly | Glu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Thr | Leu | Ala | Leu | Gln | Val | Gln | Asp | Thr | Pro | Gly | Ile | Gln | Val | His | Glu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Asn | Ser | Leu | Ser | Cys | Ser | Glu | Gln | Leu | Asn | Arg | Cys | Ile | Arg | Trp | Ala |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

|           |     |            |            |           |           |     |            |            |           |           |     |     |            |           |           |
|-----------|-----|------------|------------|-----------|-----------|-----|------------|------------|-----------|-----------|-----|-----|------------|-----------|-----------|
| Asp<br>65 | Ala | Val        | Val        | Ile       | Val<br>70 | Phe | Ser        | Ile        | Thr       | Asp<br>75 | Tyr | Lys | Ser        | Tyr       | Glu<br>80 |
| Leu       | Ile | Ser        | Gln        | Leu<br>85 | His       | Gln | His        | Val        | Gln<br>90 | Gln       | Leu | His | Leu        | Gly<br>95 | His       |
| Pro       | Ala | Ala        | Cys<br>100 | Gly       | Trp       | Ser | Trp        | Ala<br>105 | Asn       | Lys       | Ser | Asp | Leu<br>110 | Leu       | His       |
| Ile       | Lys | Gln<br>115 | Val        | Asp       | Pro       | Gln | Leu<br>120 | Gly        |           |           |     |     |            |           |           |

&lt;210&gt; 205

&lt;211&gt; 205

&lt;212&gt; PRT

&lt;213&gt; homo sapiens

&lt;400&gt; 205

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gly<br>1   | Pro        | Leu        | Pro        | Ala<br>5   | Leu        | Ala        | Ala        | Gly        | Ser<br>10  | Thr        | Phe        | Pro        | Val        | Leu<br>15  | Ala        |
| Cys        | Ser        | Ser        | Ala<br>20  | Met        | Ala        | Pro        | Lys        | Gly<br>25  | Ser        | Ser        | Lys        | Gln        | Gln<br>30  | Ser        | Glu        |
| Glu        | Asp        | Leu<br>35  | Leu        | Leu        | Gln        | Asp        | Phe<br>40  | Ser        | Arg        | Asn        | Leu        | Ser<br>45  | Ala        | Lys        | Ser        |
| Ser        | Ala<br>50  | Leu        | Phe        | Phe        | Gly        | Asn<br>55  | Ala        | Phe        | Ile        | Val        | Ser<br>60  | Ala        | Ile        | Pro        | Ile        |
| Trp<br>65  | Leu        | Tyr        | Trp        | Arg        | Ile<br>70  | Trp        | His        | Met        | Asp        | Leu<br>75  | Ile        | Gln        | Ser        | Ala        | Val<br>80  |
| Leu        | Tyr        | Ser        | Val        | Met<br>85  | Thr        | Leu        | Val        | Ser        | Thr<br>90  | Tyr        | Leu        | Val        | Ala        | Phe<br>95  | Ala        |
| Tyr        | Lys        | Asn        | Val<br>100 | Lys        | Phe        | Val        | Leu        | Lys<br>105 | His        | Lys        | Val        | Ala        | Gln<br>110 | Lys        | Arg        |
| Glu        | Asp        | Ala<br>115 | Val        | Ser        | Lys        | Glu        | Val<br>120 | Thr        | Arg        | Lys        | Leu        | Ser<br>125 | Glu        | Ala        | Asp        |
| Asn        | Arg<br>130 | Lys        | Met        | Ser        | Arg        | Lys<br>135 | Glu        | Lys        | Asp        | Glu        | Arg<br>140 | Ile        | Leu        | Trp        | Lys        |
| Lys<br>145 | Asn        | Glu        | Val        | Ala        | Asp<br>150 | Tyr        | Glu        | Ala        | Thr        | Thr<br>155 | Phe        | Ser        | Ile        | Phe        | Tyr<br>160 |
| Asn        | Asn        | Thr        | Leu        | Phe<br>165 | Leu        | Val        | Val        | Val        | Ile<br>170 | Val        | Ala        | Ser        | Phe        | Phe<br>175 | Ile        |
| Leu        | Lys        | Asn        | Phe<br>180 | Asn        | Pro        | Thr        | Val        | Asn<br>185 | Tyr        | Ile        | Leu        | Ser        | Ile<br>190 | Ser        | Ala        |
| Ser        | Ser        | Gly<br>195 | Leu        | Ile        | Ala        | Leu        | Leu<br>200 | Ser        | Thr        | Gly        | Ser        | Lys<br>205 |            |            |            |

&lt;210&gt; 206

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; homo sapiens

<400> 206

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |  |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| Val<br>1  | Leu       | His       | Gln        | Asp<br>5  | Ser       | Ser       | Pro       | Ser        | Cys<br>10 | Leu       | Leu       | Ala       | Pro       | Asn<br>15 | Arg       |  |
| Pro       | Cys       | Gln       | Leu<br>20  | His       | Pro       | Leu       | Ala       | Leu<br>25  | Cys       | Leu       | Trp       | Val       | Ala<br>30 | Cys       | Gly       |  |
| Ile       | Trp       | Lys<br>35 | Ser        | Ser       | Arg       | Val       | Val<br>40 | Arg        | Val       | Gly       | Asp       | Thr<br>45 | Arg       | Cys       | Phe       |  |
| Tyr       | Ser<br>50 | Leu       | Glu        | Pro       | Leu       | Lys<br>55 | Asn       | Pro        | Ala       | Glu       | Cys<br>60 | Asn       | Ser       | Val       | Phe       |  |
| Val<br>65 | Tyr       | Trp       | Leu        | Phe       | Phe<br>70 | Asp       | Arg       | Leu        | Leu       | Lys<br>75 | Leu       | Asn       | Glu       | Leu       | Lys<br>80 |  |
| Gly       | Lys       | Leu       | Arg        | Val<br>85 | Leu       | Gly       | Arg       | Leu        | Leu<br>90 | Lys       | Gly       | Lys       | Lys       | Cys<br>95 | Leu       |  |
| Ala       | Met       | Cys       | Cys<br>100 | Asn       | His       | Lys       | Arg       | Arg<br>105 | Lys       |           |           |           |           |           |           |  |

<210> 207

<211> 105

<212> PRT

<213> homo sapiens

<400> 207

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |  |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| Ser<br>1  | Thr       | Tyr       | Gly        | Gln<br>5  | Tyr       | Val       | Val       | His        | Cys<br>10 | Gly       | Val       | Glu       | Val       | Leu<br>15 | Gln       |  |
| Tyr       | Glu       | Glu       | Gly<br>20  | Ser       | Asn       | Asn       | Asp       | His<br>25  | Asp       | Gln       | Glu       | Gln       | Ser<br>30 | Val       | Val       |  |
| Ile       | Glu       | Asp<br>35 | Gly        | Lys       | Cys       | Cys       | Ser<br>40 | Phe        | Ile       | Ile       | Ser       | Asn<br>45 | Phe       | Ile       | Leu       |  |
| Leu       | Pro<br>50 | Gln       | Asp        | Ser       | Phe       | Ile<br>55 | Phe       | Leu        | Leu       | Pro       | Arg<br>60 | His       | Leu       | Ser       | Ile       |  |
| Ile<br>65 | Ser       | Phe       | Arg        | Lys       | Phe<br>70 | Ser       | Ser       | His        | Phe       | Phe<br>75 | Gly       | Asn       | Ser       | Ile       | Leu<br>80 |  |
| Pro       | Leu       | Leu       | Cys        | Tyr<br>85 | Phe       | Val       | Leu       | Glu        | Asn<br>90 | Lys       | Phe       | His       | Ile       | Leu<br>95 | Val       |  |
| Cys       | Lys       | Gly       | Tyr<br>100 | Gln       | Ile       | Cys       | Ala       | Tyr<br>105 |           |           |           |           |           |           |           |  |

<210> 208

<211> 549

<212> PRT

<213> homo sapiens

<400> 208

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |  |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|--|
| Leu<br>1 | Tyr | Pro | Asn | Phe<br>5 | Leu | Val | Asn | Glu | Leu<br>10 | Ile | Leu | Lys | Gln | Lys<br>15 | Gln |  |
| Arg      | Phe | Glu | Glu | Lys      | Arg | Phe | Lys | Leu | Asp       | His | Ser | Val | Ser | Ser       | Thr |  |

002221 55627960

00673395 122700

| 20         |            |            |            |            |            |            | 25         |            |            |            |            | 30         |            |            |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Asn        | Gly        | His<br>35  | Arg        | Trp        | Gln        | Ile        | Phe<br>40  | Gln        | Asp        | Trp        | Leu        | Gly<br>45  | Thr        | Asp        | Gln        |  |
| Asp        | Asn<br>50  | Leu        | Asp        | Leu        | Ala        | Asn<br>55  | Val        | Asn        | Leu        | Met        | Leu<br>60  | Glu        | Leu        | Leu        | Val        |  |
| Gln<br>65  | Lys        | Lys        | Lys        | Gln        | Leu<br>70  | Glu        | Ala        | Glu        | Ser        | His<br>75  | Ala        | Ala        | Gln        | Leu        | Gln<br>80  |  |
| Ile        | Leu        | Met        | Glu        | Phe<br>85  | Leu        | Lys        | Val        | Ala        | Arg<br>90  | Arg        | Asn        | Lys        | Arg        | Glu<br>95  | Gln        |  |
| Leu        | Glu        | Gln        | Ile<br>100 | Gln        | Lys        | Glu        | Leu        | Ser<br>105 | Val        | Leu        | Glu        | Glu        | Asp<br>110 | Ile        | Lys        |  |
| Arg        | Val        | Glu<br>115 | Glu        | Met        | Ser        | Gly        | Leu<br>120 | Tyr        | Ser        | Pro        | Val        | Ser<br>125 | Glu        | Asp        | Ser        |  |
| Thr        | Val<br>130 | Pro        | Gln        | Phe        | Glu        | Ala<br>135 | Pro        | Ser        | Pro        | Ser        | His<br>140 | Ser        | Ser        | Ile        | Ile        |  |
| Asp<br>145 | Ser        | Thr        | Glu        | Tyr        | Ser<br>150 | Gln        | Pro        | Pro        | Gly        | Phe<br>155 | Ser        | Gly        | Ser        | Ser        | Gln<br>160 |  |
| Thr        | Lys        | Lys        | Gln        | Pro<br>165 | Trp        | Tyr        | Asn        | Ser        | Thr<br>170 | Leu        | Ala        | Ser        | Arg        | Arg<br>175 | Lys        |  |
| Arg        | Leu        | Thr        | Ala<br>180 | His        | Phe        | Glu        | Asp        | Leu<br>185 | Glu        | Gln        | Cys        | Tyr        | Phe<br>190 | Ser        | Thr        |  |
| Arg        | Met        | Ser<br>195 | Arg        | Ile        | Ser        | Asp        | Asp<br>200 | Ser        | Arg        | Thr        | Ala        | Ser<br>205 | Gln        | Leu        | Asp        |  |
| Glu        | Phe<br>210 | Gln        | Glu        | Cys        | Leu        | Ser<br>215 | Lys        | Phe        | Thr        | Arg        | Tyr<br>220 | Asn        | Ser        | Val        | Arg        |  |
| Pro<br>225 | Leu        | Ala        | Thr        | Leu        | Ser<br>230 | Tyr        | Ala        | Ser        | Asp        | Leu<br>235 | Tyr        | Asn        | Gly        | Ser        | Ser<br>240 |  |
| Ile        | Val        | Ser        | Ser        | Ile<br>245 | Glu        | Phe        | Asp        | Arg        | Asp<br>250 | Cys        | Asp        | Tyr        | Phe<br>255 | Ala        | Ile        |  |
| Ala        | Gly        | Val        | Thr<br>260 | Lys        | Lys        | Ile        | Lys        | Val<br>265 | Tyr        | Glu        | Tyr        | Asp        | Thr<br>270 | Val        | Ile        |  |
| Gln        | Asp        | Ala<br>275 | Val        | Asp        | Ile        | His        | Tyr<br>280 | Pro        | Glu        | Asn        | Glu        | Met<br>285 | Thr        | Cys        | Asn        |  |
| Ser        | Lys<br>290 | Ile        | Ser        | Cys        | Ile        | Ser<br>295 | Trp        | Ser        | Ser        | Tyr        | His<br>300 | Lys        | Asn        | Leu        | Leu        |  |
| Ala<br>305 | Ser        | Ser        | Asp        | Tyr        | Glu<br>310 | Gly        | Thr        | Val        | Ile        | Leu<br>315 | Trp        | Asp        | Gly        | Phe        | Thr<br>320 |  |
| Gly        | Gln        | Arg        | Ser        | Lys<br>325 | Val        | Tyr        | Gln        | Glu        | His<br>330 | Glu        | Lys        | Arg        | Cys        | Trp<br>335 | Ser        |  |
| Val        | Asp        | Phe        | Asn<br>340 | Leu        | Met        | Asp        | Pro        | Lys<br>345 | Leu        | Leu        | Ala        | Ser        | Gly<br>350 | Ser        | Asp        |  |
| Asp        | Ala        | Lys        | Val        | Lys        | Leu        | Trp        | Ser        | Thr        | Asn        | Leu        | Asp        | Asn        | Ser        | Val        | Ala        |  |

002221-56E2950

| 355                |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |     |     |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser                | Ile | Glu | Ala | Lys | Ala | Asn | Val | Cys | Cys | Val | Lys | Phe | Ser | Pro | Ser |
|                    | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |
| Ser                | Arg | Tyr | His | Leu | Ala | Phe | Gly | Cys | Ala | Asp | His | Cys | Val | His | Tyr |
| 385                |     |     |     |     | 390 |     |     |     |     | 395 |     |     |     |     | 400 |
| Tyr                | Asp | Leu | Arg | Asn | Thr | Lys | Gln | Pro | Ile | Met | Val | Phe | Lys | Gly | His |
|                    |     |     |     | 405 |     |     |     |     | 410 |     |     |     |     | 415 |     |
| Arg                | Lys | Ala | Val | Ser | Tyr | Ala | Lys | Phe | Val | Ser | Gly | Glu | Glu | Ile | Val |
|                    |     |     | 420 |     |     |     |     | 425 |     |     |     |     | 430 |     |     |
| Ser                | Ala | Ser | Thr | Asp | Ser | Gln | Leu | Lys | Leu | Trp | Asn | Val | Gly | Lys | Pro |
|                    |     | 435 |     |     |     |     | 440 |     |     |     |     | 445 |     |     |     |
| Tyr                | Cys | Leu | Arg | Ser | Phe | Lys | Gly | His | Ile | Asn | Glu | Lys | Asn | Phe | Val |
|                    | 450 |     |     |     |     | 455 |     |     |     |     | 460 |     |     |     |     |
| Gly                | Leu | Ala | Ser | Asn | Gly | Asp | Tyr | Ile | Ala | Cys | Gly | Ser | Glu | Asn | Asn |
| 465                |     |     |     |     | 470 |     |     |     |     | 475 |     |     |     |     | 480 |
| Ser                | Leu | Tyr | Leu | Tyr | Tyr | Lys | Gly | Leu | Ser | Lys | Thr | Leu | Leu | Thr | Phe |
|                    |     |     |     | 485 |     |     |     |     | 490 |     |     |     |     | 495 |     |
| Lys                | Phe | Asp | Thr | Val | Lys | Ser | Val | Leu | Asp | Lys | Asp | Arg | Lys | Glu | Asp |
|                    |     |     | 500 |     |     |     |     | 505 |     |     |     |     | 510 |     |     |
| Asp                | Thr | Asn | Glu | Phe | Val | Ser | Ala | Val | Cys | Trp | Arg | Ala | Leu | Pro | Asp |
|                    |     | 515 |     |     |     |     | 520 |     |     |     |     | 525 |     |     |     |
| Gly                | Glu | Ser | Asn | Val | Leu | Ile | Ala | Ala | Asn | Ser | Gln | Gly | Thr | Ile | Lys |
|                    | 530 |     |     |     |     | 535 |     |     |     |     | 540 |     |     |     |     |
| Val                | Leu | Glu | Leu | Val |     |     |     |     |     |     |     |     |     |     |     |
| 545                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <210> 209          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <211> 90           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <212> PRT          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <213> homo sapiens |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <400> 209          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Gly                | Thr | Val | Leu | Ser | Ser | Leu | Thr | Gly | Glu | Tyr | Lys | Pro | Leu | Ile | Ser |
| 1                  |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser                | Thr | Leu | Leu | Ile | Ser | Ser | Ser | Lys | Thr | Leu | Ser | Ser | Phe | Trp | Ile |
|                    |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Cys                | Ser | Ser | Cys | Ser | Leu | Leu | Phe | Leu | Leu | Ala | Thr | Leu | Arg | Asn | Ser |
|                    |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ile                | Arg | Ile | Cys | Ser | Trp | Ala | Ala | Cys | Asp | Ser | Ala | Ser | Ser | Cys | Phe |
|                    | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Phe                | Phe | Cys | Thr | Ser | Asn | Ser | Asn | Ile | Arg | Leu | Thr | Leu | Ala | Lys | Ser |
| 65                 |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Arg                | Leu | Ser | Trp | Ser | Val | Pro | Asn | Gln | Ser |     |     |     |     |     |     |
|                    |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     |     |     |



<210> 210  
 <211> 95  
 <212> PRT  
 <213> homo sapiens

<400> 210

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Phe<br>1  | Pro       | Ser       | Ser       | Leu<br>5  | Leu       | Phe       | Phe       | Phe       | Phe<br>10 | Phe       | Phe       | Phe       | Phe       | Phe<br>15 | Cys       |
| Gly       | Ser       | Ile       | Asn<br>20 | Phe       | Tyr       | Cys       | Phe       | Val<br>25 | Ile       | Tyr       | Phe       | Tyr       | Ser<br>30 | Lys       | Glu       |
| Phe       | Val       | Ser<br>35 | Leu       | Ser       | Gln       | Lys       | Leu<br>40 | Asp       | Asn       | Thr       | Thr       | Lys<br>45 | Ser       | Ser       | Asn       |
| Val       | His<br>50 | Gly       | Val       | Thr       | Leu       | Met<br>55 | Val       | Glu       | Ser       | Trp       | Leu<br>60 | Gly       | Ile       | Pro       | Asn       |
| Val<br>65 | Pro       | Lys       | Val       | Ile       | Lys<br>70 | Glu       | Gly       | Lys       | Glu       | Lys<br>75 | Lys       | Lys       | Lys       | Ile       | Phe<br>80 |
| Lys       | Thr       | Asn       | Pro       | Lys<br>85 | Pro       | Met       | Met       | Thr       | Leu<br>90 | Gly       | Arg       | Asp       | Ile       | Thr<br>95 |           |

<210> 211  
 <211> 80  
 <212> PRT  
 <213> homo sapiens

<400> 211

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Lys<br>1  | Lys       | Met       | Val       | Arg<br>5 | Leu       | Gly       | Leu       | Phe       | Ser<br>10 | Cys       | Leu       | Leu       | Ala       | Ile<br>15 | Tyr       |
| Ser       | Leu       | Leu       | Trp<br>20 | Ile      | Val       | Cys       | Ile       | Pro<br>25 | Tyr       | Leu       | Leu       | Ser       | Ile<br>30 | Gly       | Leu       |
| Cys       | Val       | Asp<br>35 | Ile       | Leu      | Phe       | Leu       | Phe<br>40 | Val       | Gln       | His       | Leu       | Leu<br>45 | Pro       | His       | Leu       |
| Leu       | Val<br>50 | Thr       | Gln       | Pro      | Leu       | Phe<br>55 | Ile       | Cys       | Gly       | Glu       | Pro<br>60 | Ile       | Pro       | Cys       | Gly       |
| Leu<br>65 | Gly       | Glu       | His       | Val      | Thr<br>70 | Arg       | Pro       | Gly       | Leu       | Leu<br>75 | Ser       | Pro       | Thr       | Ala       | Ser<br>80 |

<210> 212  
 <211> 67  
 <212> PRT  
 <213> homo sapiens

<400> 212

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Leu<br>1 | Lys | Lys       | Gly       | Lys<br>5 | Trp | Ala | Lys       | Ala       | Ile<br>10 | His | Asn | Arg       | Lys       | Cys<br>15 | Lys |
| Trp      | Pro | Arg       | Asn<br>20 | Met      | Lys | Arg | Cys       | Ser<br>25 | Ser       | Ser | Leu | Ile       | Phe<br>30 | Lys       | Glu |
| Lys      | Lys | Glu<br>35 | Ile       | Leu      | Pro | Thr | Arg<br>40 | Leu       | Ala       | Lys | Ile | Phe<br>45 | Lys       | Asp       | Ser |

002227" 56E/960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Ala | Asp | Tyr | Arg | Gln | Thr | Gly | Ile | Leu | Thr | Asn | Asp | Gly | Val |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Val | Asn | Trp |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 213  
 <211> 78  
 <212> PRT  
 <213> homo sapiens

<400> 213

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Glu | Val | Gly | Gln | Ala | Leu | Gly | Thr | Ala | Gly | Ser | Arg | Ala | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg | Lys | Met | Thr | Ser | Glu | Leu | Ser | Ser | Leu | Ser | Ile | Ser | Ala | Ser | Ile |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Arg | Val | Ser | Pro | Gln | Thr | Asp | Ser | Leu | His | Met | Ala | Gln | Ile | Gln | Ala |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Tyr | Met | Val | Leu | Gly | Ser | Trp | Asp | Leu | His | Lys | Ala | Phe | Phe | Pro | Val |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Val | Pro | Ala | Glu | Val | Leu | Leu | Arg | Ala | Phe | Leu | Ser | Leu | Ala |     |     |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     |     |

<210> 214  
 <211> 105  
 <212> PRT  
 <213> homo sapiens

<400> 214

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ala | Gly | Lys | Arg | Ala | Leu | Tyr | Lys | His | Thr | Gln | Thr | Asn | Thr | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Gly | Asp | Gly | Cys | Val | Leu | Leu | Glu | Gln | Arg | Leu | Ile | Lys | His | Ser | Val |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Cys | Trp | Leu | Ser | Val | Pro | Leu | Leu | Glu | Asn | Asn | Glu | Leu | Gly | Lys | Glu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Gln | Leu | Ile | Arg | Lys | Cys | Ala | Leu | Leu | Thr | Val | His | Ile | Thr | Thr | Lys |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ser | Trp | Gln | Leu | Leu | Lys | Glu | Lys | Gly | Leu | Cys | Arg | Cys | Arg | Ser | Asn |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Leu | Ser | Val | Asn | Ser | Cys | Gln | Gln | Pro | Gln | Arg | Leu | Pro | Pro | Gln | His |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Thr | Leu | Ile | Thr | Cys | Val | Cys | Leu | Ala |     |     |     |     |     |     |     |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     |     |     |     |

<210> 215  
 <211> 216  
 <212> PRT  
 <213> homo sapiens

<400> 215

002227 5622960

09673395-122700

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Leu<br>1   | Ser        | Leu        | Thr        | Ser<br>5   | Arg        | Met        | Glu        | Glu        | Ala<br>10  | Glu        | Leu        | Val        | Lys        | Gly<br>15  | Arg        |  |
| Leu        | Gln        | Ala        | Ile<br>20  | Thr        | Asp        | Lys        | Arg        | Lys<br>25  | Ile        | Gln        | Glu        | Glu        | Ile<br>30  | Ser        | Gln        |  |
| Lys        | Arg        | Leu<br>35  | Lys        | Ile        | Glu        | Glu        | Asp<br>40  | Lys        | Leu        | Lys        | His        | Gln<br>45  | His        | Leu        | Lys        |  |
| Lys        | Lys<br>50  | Ala        | Leu        | Arg        | Glu        | Lys<br>55  | Trp        | Leu        | Leu        | Asp        | Gly<br>60  | Ile        | Ser        | Ser        | Gly        |  |
| Lys<br>65  | Glu        | Gln        | Glu        | Glu        | Met<br>70  | Lys        | Lys        | Gln        | Asn        | Gln<br>75  | Gln        | Asp        | Gln        | His        | Gln<br>80  |  |
| Ile        | Gln        | Val        | Leu        | Glu<br>85  | Gln        | Ser        | Ile        | Leu        | Arg<br>90  | Leu        | Glu        | Lys        | Glu        | Ile<br>95  | Gln        |  |
| Asp        | Leu        | Glu        | Lys<br>100 | Ala        | Glu        | Leu        | Gln        | Ile<br>105 | Ser        | Thr        | Lys        | Glu        | Glu<br>110 | Ala        | Ile        |  |
| Leu        | Lys        | Lys<br>115 | Leu        | Lys        | Ser        | Ile        | Glu<br>120 | Arg        | Thr        | Thr        | Glu        | Asp<br>125 | Ile        | Ile        | Arg        |  |
| Ser        | Val<br>130 | Lys        | Val        | Glu        | Arg        | Glu<br>135 | Glu        | Arg        | Ala        | Glu        | Glu<br>140 | Ser        | Ile        | Glu        | Asp        |  |
| Ile<br>145 | Tyr        | Ala        | Asn        | Ile        | Pro<br>150 | Asp        | Leu        | Pro        | Lys        | Ser<br>155 | Tyr        | Ile        | Pro        | Ser        | Arg<br>160 |  |
| Leu        | Arg        | Lys        | Glu        | Ile<br>165 | Asn        | Glu        | Glu        | Lys        | Glu<br>170 | Asp        | Asp        | Glu        | Gln        | Asn<br>175 | Arg        |  |
| Lys        | Ala        | Leu        | Tyr<br>180 | Ala        | Met        | Glu        | Ile        | Lys<br>185 | Val        | Glu        | Lys        | Asp        | Leu<br>190 | Arg        | Thr        |  |
| Gly        | Glu        | Ser<br>195 | Thr        | Val        | Leu        | Ser        | Ser<br>200 | Ile        | Pro        | Leu        | Pro        | Ser<br>205 | Asp        | Asp        | Phe        |  |
| Lys        | Arg<br>210 | Ser        | Arg        | Ser        | Lys        | Ser<br>215 | Leu        |            |            |            |            |            |            |            |            |  |

<210> 216

<211> 112

<212> PRT

<213> homo sapiens

<400> 216

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |  |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| Phe<br>1  | Cys       | Phe       | Phe       | Ile<br>5 | Ser       | Ser       | Cys       | Ser       | Phe<br>10 | Pro       | Leu       | Leu       | Ile       | Pro<br>15 | Ser       |  |
| Arg       | Ser       | His       | Phe<br>20 | Ser      | Leu       | Lys       | Ala       | Phe<br>25 | Phe       | Phe       | Lys       | Cys       | Trp<br>30 | Cys       | Phe       |  |
| Ser       | Leu       | Ser<br>35 | Ser       | Ser      | Ile       | Phe       | Arg<br>40 | Arg       | Phe       | Cys       | Glu       | Ile<br>45 | Ser       | Ser       | Cys       |  |
| Ile       | Phe<br>50 | Leu       | Leu       | Ser      | Val       | Met<br>55 | Ala       | Trp       | Ser       | Leu       | Pro<br>60 | Phe       | Thr       | Ser       | Ser       |  |
| Ala<br>65 | Ser       | Ser       | Ile       | Leu      | Glu<br>70 | Val       | Lys       | Asp       | Ser       | Gln<br>75 | Thr       | Gly       | Lys       | Gln       | Val<br>80 |  |

|     |     |     |            |           |     |     |     |            |           |     |     |     |            |           |     |
|-----|-----|-----|------------|-----------|-----|-----|-----|------------|-----------|-----|-----|-----|------------|-----------|-----|
| Gln | Ser | Tyr | His        | Lys<br>85 | Ser | Arg | Ser | Leu        | Leu<br>90 | Gly | Glu | Arg | Ser        | Gly<br>95 | Gly |
| Asp | Arg | Arg | Glu<br>100 | Ala       | Gly | Arg | Asn | Pro<br>105 | Leu       | Phe | Ala | Pro | Val<br>110 | Glu       | Lys |

<210> 217  
 <211> 339  
 <212> PRT  
 <213> homo sapiens

<400> 217

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ser<br>1   | Ser        | Gln        | Leu        | Arg<br>5   | Arg        | Arg        | Leu        | Val        | Pro<br>10  | Ala        | Pro        | Ala        | Ala        | Pro<br>15  | Arg        |
| Pro        | Arg        | Pro        | Asn<br>20  | His        | Gly        | Val        | Leu        | Arg<br>25  | Gly        | Arg        | Leu        | Arg        | Gly<br>30  | Asp        | Arg        |
| Trp        | Gln        | Trp<br>35  | Ser        | His        | Trp        | Ala        | Lys<br>40  | Trp        | Ala        | Met        | Leu        | Phe<br>45  | Ala        | Ser        | Gly        |
| Gly        | Phe<br>50  | Gln        | Val        | Lys        | Leu        | Tyr<br>55  | Asp        | Ile        | Glu        | Gln        | Gln<br>60  | Gln        | Ile        | Arg        | Asn        |
| Ala<br>65  | Leu        | Glu        | Asn        | Ile        | Arg<br>70  | Lys        | Glu        | Met        | Lys        | Leu<br>75  | Leu        | Glu        | Gln        | Ala        | Gly<br>80  |
| Ser        | Leu        | Lys        | Gly        | Ser<br>85  | Leu        | Ser        | Val        | Glu        | Glu<br>90  | Gln        | Leu        | Ser        | Leu        | Ile<br>95  | Ser        |
| Gly        | Cys        | Pro        | Asn<br>100 | Ile        | Gln        | Glu        | Ala        | Val<br>105 | Glu        | Gly        | Ala        | Met        | His<br>110 | Ile        | Gln        |
| Glu        | Cys        | Val<br>115 | Pro        | Glu        | Asp        | Leu        | Glu<br>120 | Leu        | Lys        | Lys        | Lys        | Ile<br>125 | Phe        | Ala        | Gln        |
| Leu        | Asp<br>130 | Ser        | Ile        | Ile        | Asp        | Asp<br>135 | Arg        | Val        | Ile        | Leu        | Ser<br>140 | Ser        | Ser        | Thr        | Ser        |
| Cys<br>145 | Leu        | Met        | Pro        | Ser        | Lys<br>150 | Leu        | Phe        | Ala        | Gly        | Leu<br>155 | Val        | His        | Val        | Lys        | Gln<br>160 |
| Cys        | Ile        | Val        | Ala        | His<br>165 | Pro        | Val        | Asn        | Pro        | Pro<br>170 | Tyr        | Tyr        | Ile        | Pro        | Leu<br>175 | Val        |
| Glu        | Leu        | Val        | Pro<br>180 | His        | Pro        | Glu        | Thr        | Ala<br>185 | Pro        | Thr        | Thr        | Val        | Asp<br>190 | Arg        | Thr        |
| His        | Ala        | Leu<br>195 | Met        | Lys        | Lys        | Ile        | Gly<br>200 | Gln        | Cys        | Pro        | Met        | Arg<br>205 | Val        | Gln        | Lys        |
| Glu        | Val<br>210 | Ala        | Gly        | Phe        | Val        | Leu<br>215 | Asn        | Arg        | Leu        | Gln        | Tyr<br>220 | Ala        | Ile        | Ile        | Ser        |
| Glu<br>225 | Ala        | Trp        | Arg        | Leu        | Val<br>230 | Glu        | Glu        | Gly        | Ile        | Val<br>235 | Ser        | Pro        | Ser        | Asp        | Leu<br>240 |
| Asp        | Leu        | Val        | Met        | Ser<br>245 | Glu        | Gly        | Leu        | Gly        | Met<br>250 | Arg        | Tyr        | Ala        | Phe        | Ile<br>255 | Gly        |
| Pro        | Leu        | Glu        | Thr        | Met        | His        | Leu        | Asn        | Ala        | Glu        | Gly        | Met        | Leu        | Ser        | Tyr        | Cys        |

09673395 "122700

| 260         |            |            |     |            |            |            | 265        |     |            |            |            | 270        |     |            |            |  |
|-------------|------------|------------|-----|------------|------------|------------|------------|-----|------------|------------|------------|------------|-----|------------|------------|--|
| Asp         | Arg        | Tyr<br>275 | Ser | Glu        | Gly        | Ile        | Lys<br>280 | His | Val        | Leu        | Gln        | Thr<br>285 | Phe | Gly        | Pro        |  |
| Ile         | Pro<br>290 | Glu        | Phe | Ser        | Arg        | Ala<br>295 | Thr        | Ala | Glu        | Lys        | Val<br>300 | Asn        | Gln | Asp        | Met        |  |
| Cys<br>305  | Met        | Lys        | Val | Pro        | Asp<br>310 | Asp        | Pro        | Glu | His        | Leu<br>315 | Ala        | Ala        | Arg | Arg        | Gln<br>320 |  |
| Trp         | Arg        | Asp        | Glu | Cys<br>325 | Leu        | Met        | Arg        | Leu | Ala<br>330 | Lys        | Leu        | Lys        | Ser | Gln<br>335 | Val        |  |
| Gln Pro Gln |            |            |     |            |            |            |            |     |            |            |            |            |     |            |            |  |

<210> 218  
 <211> 109  
 <212> PRT  
 <213> homo sapiens

<400> 218

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Lys<br>1  | Asp       | Pro       | Gln        | Ile<br>5  | Thr       | Gln       | Lys       | Gly        | Ile<br>10 | Thr       | Lys       | Ile       | Ile       | Thr<br>15 | Lys       |
| Ile       | Phe       | Cys       | Pro<br>20  | His       | Ile       | Asn       | Met       | Lys<br>25  | Thr       | Thr       | Ile       | Thr       | Gly<br>30 | Cys       | Gln       |
| Ile       | Ile       | Leu<br>35 | Lys        | Cys       | Asn       | Gln       | Ala<br>40 | Glu        | Lys       | Glu       | Lys       | Val<br>45 | Lys       | Ile       | Ser       |
| Arg       | Leu<br>50 | Ser       | Ala        | Gln       | Val       | Ala<br>55 | Gly       | Asn        | Arg       | Gln       | Pro<br>60 | Arg       | Glu       | Arg       | Lys       |
| Cys<br>65 | Cys       | Cys       | Ala        | Ala       | Arg<br>70 | Pro       | Arg       | Ala        | Met       | Ile<br>75 | Gln       | Ser       | Asp       | Gly       | Gln<br>80 |
| Thr       | Thr       | Gly       | Leu        | His<br>85 | His       | Pro       | Thr       | Gln        | Ala<br>90 | Ala       | His       | Lys       | Thr       | Ala<br>95 | Ser       |
| Leu       | Gly       | Ser       | Pro<br>100 | Trp       | Ala       | Ala       | Thr       | Tyr<br>105 | Val       | Thr       | Glu       | Gly       |           |           |           |

<210> 219  
 <211> 98  
 <212> PRT  
 <213> homo sapiens

<400> 219

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Leu<br>1 | Asn       | Ile       | Pro       | Ser<br>5 | Ala | Leu       | Arg       | Cys       | Met<br>10 | Val | Ser       | Arg       | Gly       | Pro<br>15 | Met |
| Asn      | Ala       | Tyr       | Arg<br>20 | Met      | Pro | Asn       | Pro       | Ser<br>25 | Asp       | Met | Thr       | Arg       | Ser<br>30 | Arg       | Ser |
| Leu      | Gly       | Asp<br>35 | Thr       | Ile      | Pro | Ser       | Ser<br>40 | Thr       | Ser       | Arg | Gln       | Ala<br>45 | Ser       | Leu       | Met |
| Ile      | Ala<br>50 | Tyr       | Cys       | Arg      | Arg | Phe<br>55 | Arg       | Thr       | Lys       | Pro | Ala<br>60 | Thr       | Ser       | Phe       | Trp |

002227 56573395 122700

|           |     |     |     |           |           |     |     |     |           |           |     |     |     |           |           |
|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|
| Thr<br>65 | Arg | Met | Gly | His       | Cys<br>70 | Pro | Ile | Phe | Phe       | Ile<br>75 | Arg | Ala | Trp | Val       | Leu<br>80 |
| Ser       | Thr | Val | Val | Gly<br>85 | Ala       | Val | Ser | Gly | Trp<br>90 | Gly       | Thr | Ser | Ser | Thr<br>95 | Ser       |

Gly Met

<210> 220  
 <211> 129  
 <212> PRT  
 <213> homo sapiens

<400> 220

|           |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Thr<br>1  | Met       | Phe        | Phe        | Thr<br>5  | Cys       | Gly       | Pro        | Asn        | Glu<br>10 | Ala       | Met       | Val        | Val        | Ser<br>15 | Gly       |
| Phe       | Cys       | Arg        | Ser<br>20  | Pro       | Pro       | Val       | Met        | Val<br>25  | Ala       | Gly       | Gly       | Arg        | Val<br>30  | Phe       | Val       |
| Leu       | Pro       | Cys<br>35  | Ile        | Gln       | Gln       | Ile       | Gln<br>40  | Arg        | Ile       | Ser       | Leu       | Asn<br>45  | Thr        | Leu       | Thr       |
| Leu       | Asn<br>50 | Val        | Lys        | Ser       | Glu       | Lys<br>55 | Val        | Tyr        | Thr       | Arg       | His<br>60 | Gly        | Val        | Pro       | Ile       |
| Ser<br>65 | Val       | Thr        | Gly        | Ile       | Ala<br>70 | Gln       | Val        | Lys        | Leu       | Ser<br>75 | Glu       | Pro        | Phe        | Pro       | His<br>80 |
| Ser       | Pro       | Leu        | Pro        | His<br>85 | His       | Pro       | Leu        | Ser        | Gln<br>90 | Thr       | Leu       | Arg        | His        | Leu<br>95 | Leu       |
| Ala       | Thr       | Val        | Phe<br>100 | Ser       | Thr       | Leu       | Ala        | Cys<br>105 | Arg       | Glu       | Val       | Pro        | Leu<br>110 | Leu       | Val       |
| Ser       | Ser       | Phe<br>115 | Pro        | Gly       | Thr       | Pro       | Arg<br>120 | His        | Leu       | Pro       | Pro       | Pro<br>125 | Pro        | Phe       | Phe       |

Pro

<210> 221  
 <211> 118  
 <212> PRT  
 <213> homo sapiens

<400> 221

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Asp<br>1  | Gly       | Asp       | Pro       | Met<br>5 | Ala       | Ser       | Val       | Asn       | Leu<br>10 | Phe       | Thr       | Leu       | Asp       | Ile<br>15 | Glu       |
| Gly       | Gln       | Cys       | Val<br>20 | Glu      | Arg       | Asp       | Pro       | Leu<br>25 | Asp       | Leu       | Leu       | Asp       | Ala<br>30 | Gly       | Gln       |
| Asp       | Lys       | Asp<br>35 | Thr       | Pro      | Ser       | Ser       | His<br>40 | His       | Asp       | Trp       | Gly       | Ala<br>45 | Ser       | Ala       | Glu       |
| Pro       | Gly<br>50 | Asp       | His       | His      | Gly       | Leu<br>55 | Ile       | Trp       | Ala       | Thr       | Ser<br>60 | Glu       | Lys       | His       | Gly       |
| Ser<br>65 | Gly       | Trp       | Ser       | Phe      | Arg<br>70 | Asp       | Ala       | Gly       | Gly       | Ser<br>75 | Pro       | Ala       | Gly       | Val       | Ser<br>80 |

00/221" 56E2950

|     |     |            |            |           |     |     |     |            |           |     |     |     |            |           |     |
|-----|-----|------------|------------|-----------|-----|-----|-----|------------|-----------|-----|-----|-----|------------|-----------|-----|
| Gly | Arg | Ala        | Gly        | Ser<br>85 | Arg | Arg | Asp | Leu        | Gly<br>90 | Ala | Gly | Gln | Gly        | Pro<br>95 | Leu |
| Ala | Asp | Gln        | Leu<br>100 | Ser       | Trp | Glu | Leu | Ala<br>105 | Pro       | Ser | Arg | Val | Pro<br>110 | His       | Pro |
| Ala | Ala | Pro<br>115 | Arg        | Cys       | Cys |     |     |            |           |     |     |     |            |           |     |

<210> 222  
 <211> 119  
 <212> PRT  
 <213> homo sapiens

<400> 222

|           |           |            |            |           |           |           |           |            |           |           |           |           |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Trp<br>1  | Pro       | Ser        | Gly        | Gly<br>5  | Pro       | Leu       | Thr       | Ser        | Pro<br>10 | Gly       | Gln       | Cys       | Gly        | Gln<br>15 | Ser       |
| Gln       | Pro       | Pro        | Ser<br>20  | Ser       | Pro       | Ala       | Thr       | Ser<br>25  | Asp       | Arg       | Arg       | Pro       | Pro<br>30  | Thr       | Ser       |
| Pro       | Cys       | Ser<br>35  | Ala        | Pro       | Gly       | Phe       | Leu<br>40 | Pro        | Val       | Ala       | Arg       | Val<br>45 | Gly        | Val       | Gly       |
| Lys       | Val<br>50 | Trp        | Trp        | Gly       | Ser       | His<br>55 | Glu       | Val        | Arg       | Gly       | Lys<br>60 | Ala       | Glu        | Arg       | Glu       |
| Gly<br>65 | Arg       | Ala        | Leu        | Ser       | Glu<br>70 | Met       | Leu       | Leu        | Pro       | Phe<br>75 | Gln       | Gly       | Lys        | Lys       | Gly<br>80 |
| Gly       | Gly       | Gly        | Lys        | Cys<br>85 | Leu       | Gly       | Val       | Pro        | Gly<br>90 | Lys       | Asp       | Glu       | Thr        | Ser<br>95 | Arg       |
| Gly       | Thr       | Ser        | Leu<br>100 | Gln       | Ala       | Arg       | Val       | Glu<br>105 | Lys       | Thr       | Val       | Ala       | Arg<br>110 | Arg       | Cys       |
| Leu       | Asn       | Val<br>115 | Trp        | Glu       | Arg       | Gly       |           |            |           |           |           |           |            |           |           |

<210> 223  
 <211> 93  
 <212> PRT  
 <213> homo sapiens

<400> 223

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Gly<br>1  | Arg       | Arg       | Thr       | Leu<br>5 | Phe       | Leu       | Ala       | Thr       | Phe<br>10 | Gly       | Gly       | Tyr       | Pro       | Gly<br>15 | Ser       |
| Leu       | Gly       | Cys       | Ser<br>20 | Leu      | Ser       | Gly       | Glu       | Ala<br>25 | Asn       | Ile       | Ser       | Leu       | Val<br>30 | Ser       | Phe       |
| Phe       | His       | Pro<br>35 | Leu       | Asn      | Cys       | Lys       | Leu<br>40 | Arg       | Ile       | Thr       | Gln       | Ala<br>45 | His       | His       | Tyr       |
| Ser       | Arg<br>50 | Leu       | Gly       | Leu      | Ala       | Ser<br>55 | Gln       | Ser       | Thr       | Leu       | Cys<br>60 | Pro       | Ala       | Cys       | His       |
| Cys<br>65 | Cys       | Lys       | Glu       | Leu      | Leu<br>70 | Leu       | Cys       | Gln       | Pro       | Lys<br>75 | Gln       | Arg       | Lys       | Tyr       | Gly<br>80 |
| Phe       | Ser       | Cys       | Ile       | Ile      | Phe       | Pro       | Phe       | Gly       | Trp       | Phe       | Val       | Phe       |           |           |           |

00/22T" 55EEZ950

90

<400> 224

```
<210> 225
<211> 92
<212> PRT
<213> homo sapiens
```

<400> 225

```
<210> 226
<211> 458
<212> PRT
<213> homo sapiens
```

<400> 226

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Arg<br>1 | Gly | Lys | Arg | Arg<br>5 | Arg | His | Arg | Leu | Pro<br>10 | Ala | Leu | Pro | Pro | Arg<br>15 | Leu |
| Leu      | Ser | Pro | Ser | Ala      | Ala | Thr | Met | Ser | Ala       | Ser | Ala | Val | Phe | Ile       | Leu |



09673395.122700

| 20         |            |            |            |            |            |            | 25         |            |            |            |            | 30         |            |            |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Asp        | Val        | Lys<br>35  | Gly        | Lys        | Pro        | Leu        | Ile<br>40  | Ser        | Arg        | Asn        | Tyr        | Lys<br>45  | Gly        | Asp        | Val        |  |
| Ala        | Met<br>50  | Ser        | Lys        | Ile        | Glu        | His<br>55  | Phe        | Met        | Pro        | Leu        | Leu<br>60  | Val        | His        | Gly        | Glu        |  |
| Glu<br>65  | Glu        | Gly        | Ala        | Leu        | Ala<br>70  | Pro        | Leu        | Leu        | Ser        | His<br>75  | Gly        | Gln        | Val        | His        | Phe<br>80  |  |
| Leu        | Trp        | Ile        | Lys        | His<br>85  | Ser        | Asn        | Leu        | Tyr        | Leu<br>90  | Val        | Ala        | Thr        | Thr        | Ser<br>95  | Lys        |  |
| Asn        | Ala        | Asn        | Ala<br>100 | Ser        | Leu        | Val        | Tyr        | Ser<br>105 | Phe        | Leu        | Tyr        | Lys        | Thr<br>110 | Ile        | Glu        |  |
| Val        | Phe        | Cys<br>115 | Glu        | Tyr        | Phe        | Lys        | Glu<br>120 | Leu        | Glu        | Glu        | Glu        | Ser<br>125 | Ile        | Arg        | Asp        |  |
| Asn        | Phe<br>130 | Val        | Ile        | Val        | Tyr        | Glu<br>135 | Leu        | Leu        | Asp        | Glu        | Leu<br>140 | Met        | Asp        | Phe        | Gly        |  |
| Phe<br>145 | Pro        | Gln        | Thr        | Thr        | Asp<br>150 | Ser        | Lys        | Ile        | Leu        | Gln<br>155 | Glu        | Tyr        | Ile        | Thr        | Gln<br>160 |  |
| Gln        | Ser        | Asn        | Lys        | Leu<br>165 | Glu        | Thr        | Gly        | Lys        | Ser<br>170 | Arg        | Val        | Pro        | Pro        | Thr<br>175 | Val        |  |
| Thr        | Asn        | Ala        | Val<br>180 | Ser        | Trp        | Arg        | Ser        | Glu<br>185 | Gly        | Ile        | Lys        | Tyr        | Lys<br>190 | Lys        | Asn        |  |
| Glu        | Val        | Phe<br>195 | Ile        | Asp        | Val        | Ile        | Glu<br>200 | Ser        | Val        | Asn        | Leu        | Leu<br>205 | Val        | Asn        | Ala        |  |
| Asn        | Gly<br>210 | Ser        | Val        | Leu        | Leu        | Ser<br>215 | Glu        | Ile        | Val        | Gly        | Thr<br>220 | Ile        | Lys        | Leu        | Lys        |  |
| Val<br>225 | Phe        | Leu        | Ser        | Gly        | Met<br>230 | Pro        | Glu        | Leu        | Arg        | Leu<br>235 | Gly        | Leu        | Asn        | Asp        | Arg<br>240 |  |
| Val        | Leu        | Phe        | Glu        | Leu<br>245 | Thr        | Gly        | Arg        | Ser        | Lys<br>250 | Asn        | Lys        | Ser        | Val        | Glu<br>255 | Leu        |  |
| Glu        | Asp        | Val        | Lys<br>260 | Phe        | His        | Gln        | Cys        | Val<br>265 | Arg        | Leu        | Ser        | Arg        | Phe<br>270 | Asp        | Asn        |  |
| Asp        | Arg        | Thr<br>275 | Ile        | Ser        | Phe        | Ile        | Pro<br>280 | Pro        | Asp        | Gly        | Asp        | Phe<br>285 | Glu        | Leu        | Met        |  |
| Ser        | Tyr<br>290 | Arg        | Leu        | Ser        | Thr        | Gln<br>295 | Val        | Lys        | Pro        | Leu        | Ile<br>300 | Trp        | Ile        | Glu        | Ser        |  |
| Val<br>305 | Ile        | Glu        | Lys        | Phe        | Ser<br>310 | His        | Ser        | Arg        | Val        | Glu<br>315 | Ile        | Met        | Val        | Lys        | Ala<br>320 |  |
| Lys        | Gly        | Gln        | Phe        | Lys<br>325 | Lys        | Gln        | Ser        | Val        | Ala<br>330 | Asn        | Gly        | Val        | Glu        | Ile<br>335 | Ser        |  |
| Val        | Pro        | Val        | Pro<br>340 | Ser        | Asp        | Ala        | Asp        | Ser<br>345 | Pro        | Arg        | Phe        | Lys        | Thr<br>350 | Ser        | Val        |  |
| Gly        | Ser        | Ala        | Lys        | Tyr        | Val        | Pro        | Glu        | Arg        | Asn        | Val        | Val        | Ile        | Trp        | Ser        | Ile        |  |

09673395 "1.227.00

| 355 |     |     |     |     |     | 360 |     |     |     | 365 |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Phe | Pro | Gly | Gly | Lys | Glu | Tyr | Leu | Met | Arg | Ala | His | Phe | Gly |
|     | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |
| Leu | Pro | Ser | Val | Glu | Lys | Glu | Glu | Val | Glu | Gly | Arg | Pro | Pro | Ile | Gly |
| 385 |     |     |     |     | 390 |     |     |     |     | 395 |     |     |     |     | 400 |
| Val | Lys | Phe | Glu | Ile | Pro | Tyr | Phe | Thr | Val | Ser | Gly | Ile | Gln | Val | Arg |
|     |     |     |     | 405 |     |     |     |     | 410 |     |     |     |     | 415 |     |
| Tyr | Met | Lys | Ile | Ile | Glu | Lys | Ser | Gly | Tyr | Gln | Gly | Pro | Ala | Leu | Gly |
|     |     |     | 420 |     |     |     |     | 425 |     |     |     |     | 430 |     |     |
| Phe | Arg | Tyr | Ile | His | Pro | Glu | Trp | Ala | Ile | Thr | Asn | Phe | Arg | Tyr | Gln |
|     |     | 435 |     |     |     |     | 440 |     |     |     |     | 445 |     |     |     |
| Leu | Gly | Arg | Gly | Glu | Glu | Met | Gly | Gly | Phe |     |     |     |     |     |     |
|     | 450 |     |     |     |     | 455 |     |     |     |     |     |     |     |     |     |

<210> 227  
 <211> 120  
 <212> PRT  
 <213> homo sapiens

<400> 227

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Thr | Lys | Val | Gly | Asn | Arg | Pro | Leu | Trp | Val | Asn | Val | Ala | Lys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Pro | Gln | Gly | Arg | Ala | Leu | Val | Thr | Thr | Phe | Leu | Asn | Asp | Leu | His | Val |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ser | Asp | Leu | Asp | Pro | Arg | Asp | Gly | Glu | Val | Gly | Asp | Leu | Lys | Leu | Asp |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Pro | Asp | Gly | Gly | Pro | Ala | Leu | His | Leu | Phe | Leu | Phe | His | Thr | Gly | Glu |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ala | Lys | Val | Gly | Ser | His | Gln | Val | Leu | Leu | Ala | Pro | Arg | Glu | Arg | Leu |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Asn | Thr | Pro | Asn | His | Asp | Val | Ser | Leu | Arg | His | Ile | Leu | Gly | Ala | Ala |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| His | Thr | Gly | Leu | Glu | Ser | Gly | Gly | Val | Gly | Ile | Ala | Gly | Tyr | Arg | His |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Arg | Tyr | Leu | His | Thr | Val | Gly | His |     |     |     |     |     |     |     |     |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     |     |     |     |     |

<210> 228  
 <211> 246  
 <212> PRT  
 <213> homo sapiens

<400> 228

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ile | Ser | Asn | Leu | Thr | Pro | Met | Gly | Gly | Arg | Pro | Ser | Thr | Ser | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Phe | Ser | Thr | Leu | Gly | Arg | Pro | Lys | Trp | Ala | Arg | Ile | Lys | Tyr | Ser | Leu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |

00673395.122700

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Pro        | Pro        | Gly<br>35  | Lys        | Asp        | Leu        | Ile        | Leu<br>40  | Gln        | Ile        | Thr        | Thr        | Phe<br>45  | Leu        | Ser        | Gly        |
| Thr        | Tyr<br>50  | Leu        | Ala        | Leu        | Pro        | Thr<br>55  | Leu        | Val        | Leu        | Asn        | Leu<br>60  | Gly        | Glu        | Ser        | Ala        |
| Ser<br>65  | Leu        | Gly        | Thr        | Gly        | Thr<br>70  | Asp        | Ile        | Ser        | Thr        | Pro<br>75  | Leu        | Ala        | Thr        | Asp        | Cys<br>80  |
| Phe        | Leu        | Asn        | Cys        | Pro<br>85  | Leu        | Ala        | Leu        | Thr        | Met<br>90  | Ile        | Ser        | Thr        | Arg        | Leu<br>95  | Trp        |
| Glu        | Asn        | Phe        | Ser<br>100 | Met        | Thr        | Asp        | Ser        | Ile<br>105 | Gln        | Ile        | Ser        | Gly        | Leu<br>110 | Thr        | Trp        |
| Val        | Leu        | Arg<br>115 | Arg        | Tyr        | Asp        | Met        | Ser<br>120 | Ser        | Lys        | Ser        | Pro        | Ser<br>125 | Gly        | Gly        | Met        |
| Lys        | Glu<br>130 | Met        | Val        | Arg        | Ser        | Leu<br>135 | Ser        | Lys        | Arg        | Glu        | Ser<br>140 | Arg        | Thr        | His        | Trp        |
| Trp<br>145 | Asn        | Phe        | Thr        | Ser        | Ser<br>150 | Ser        | Ser        | Thr        | Asp        | Leu<br>155 | Phe        | Leu        | Leu        | Arg        | Pro<br>160 |
| Val        | Ser        | Ser        | Lys        | Ser<br>165 | Thr        | Arg        | Ser        | Leu        | Arg<br>170 | Pro        | Ser        | Arg        | Ser        | Ser<br>175 | Gly        |
| Ile        | Pro        | Asp        | Arg<br>180 | Asn        | Thr        | Leu        | Ser        | Leu<br>185 | Met        | Val        | Pro        | Thr        | Ile<br>190 | Ser        | Leu        |
| Arg        | Arg        | Thr<br>195 | Leu        | Pro        | Leu        | Ala        | Leu<br>200 | Thr        | Ser        | Arg        | Leu        | Thr<br>205 | Asp        | Ser        | Met        |
| Thr        | Ser<br>210 | Met        | Lys        | Thr        | Ser        | Phe<br>215 | Phe        | Leu        | Tyr        | Leu        | Ile<br>220 | Pro        | Ser        | Glu        | Arg        |
| Gln<br>225 | Asp        | Thr        | Ala        | Leu        | Val<br>230 | Thr        | Val        | Gly        | Gly        | Thr<br>235 | Arg        | Asp        | Leu        | Pro        | Val<br>240 |
| Ser        | Ser        | Leu        | Leu        | Leu<br>245 | Cys        |            |            |            |            |            |            |            |            |            |            |

<210> 229  
 <211> 275  
 <212> PRT  
 <213> homo sapiens

<400> 229

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Met<br>1 | Asn       | Thr       | Arg       | Leu<br>5 | Gln | Val       | Glu       | His       | Pro<br>10 | Val | Thr       | Glu       | Met       | Ile<br>15 | Thr |
| Gly      | Thr       | Asp       | Leu<br>20 | Val      | Glu | Trp       | Gln       | Leu<br>25 | Arg       | Ile | Ala       | Ala       | Gly<br>30 | Glu       | Lys |
| Ile      | Pro       | Leu<br>35 | Ser       | Gln      | Glu | Glu       | Ile<br>40 | Thr       | Leu       | Gln | Gly       | His<br>45 | Ala       | Phe       | Glu |
| Ala      | Arg<br>50 | Ile       | Tyr       | Ala      | Glu | Asp<br>55 | Pro       | Ser       | Asn       | Asn | Phe<br>60 | Met       | Pro       | Val       | Ala |
| Gly      | Pro       | Leu       | Val       | His      | Leu | Ser       | Thr       | Pro       | Arg       | Ala | Asp       | Pro       | Ser       | Thr       | Arg |

00673395.122700

| 65         |            |            |            | 70         |            |            |            | 75         |            |            |            | 80         |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ile        | Glu        | Thr        | Gly        | Val<br>85  | Arg        | Gln        | Gly        | Asp        | Glu<br>90  | Val        | Ser        | Val        | His        | Tyr<br>95  | Asp        |
| Pro        | Met        | Ile        | Ala<br>100 | Lys        | Trp        | Val        | Val        | Trp<br>105 | Ala        | Ala        | Asp        | Arg        | Gln<br>110 | Ala        | Ala        |
| Leu        | Thr        | Lys<br>115 | Leu        | Arg        | Tyr        | Ser        | Leu<br>120 | Arg        | Gln        | Tyr        | Asn        | Ile<br>125 | Val        | Gly        | Leu        |
| Pro        | Thr<br>130 | Asn        | Ile        | Asp        | Phe        | Leu<br>135 | Leu        | Asn        | Leu        | Ser        | Gly<br>140 | His        | Pro        | Glu        | Phe        |
| Glu<br>145 | Ala        | Gly        | Asn        | Val        | His<br>150 | Thr        | Asp        | Phe        | Ile        | Pro<br>155 | Gln        | His        | His        | Lys        | Gln<br>160 |
| Leu        | Leu        | Leu        | Ser        | Arg<br>165 | Lys        | Ala        | Ala        | Ala        | Lys<br>170 | Glu        | Ser        | Leu        | Cys        | Gln<br>175 | Ala        |
| Ala        | Leu        | Gly        | Leu<br>180 | Ile        | Leu        | Lys        | Glu        | Lys<br>185 | Ala        | Met        | Thr        | Asp        | Thr<br>190 | Phe        | Thr        |
| Leu        | Gln        | Ala<br>195 | His        | Asp        | Gln        | Phe        | Ser<br>200 | Pro        | Phe        | Ser        | Ser        | Ser<br>205 | Ser        | Gly        | Arg        |
| Arg        | Leu<br>210 | Asn        | Ile        | Ser        | Tyr        | Thr<br>215 | Arg        | Asn        | Met        | Thr        | Leu<br>220 | Lys        | Asp        | Gly        | Lys        |
| Asn<br>225 | Asn        | Val        | Ala        | Ile        | Ala<br>230 | Val        | Thr        | Tyr        | Asn        | His<br>235 | Asp        | Gly        | Ser        | Tyr        | Ser<br>240 |
| Met        | Gln        | Ile        | Glu        | Asp<br>245 | Lys        | Thr        | Phe        | Gln        | Val<br>250 | Leu        | Gly        | Asn        | Leu        | Tyr<br>255 | Ser        |
| Glu        | Gly        | Asp        | Cys<br>260 | Thr        | Tyr        | Leu        | Lys        | Cys<br>265 | Ser        | Val        | Asn        | Gly        | Val<br>270 | Ala        | Ser        |
| Lys        | Ala        | Lys<br>275 |            |            |            |            |            |            |            |            |            |            |            |            |            |

<210> 230  
 <211> 117  
 <212> PRT  
 <213> homo sapiens

<400> 230

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ser<br>1  | Glu       | Val       | Ile       | Ile<br>5 | Leu       | Glu       | Asn       | Thr       | Ile<br>10 | Tyr       | Leu       | Phe       | Ser       | Lys<br>15 | Glu       |
| Gly       | Ser       | Ile       | Glu<br>20 | Ile      | Asp       | Ile       | Pro       | Val<br>25 | Pro       | Lys       | Tyr       | Leu       | Ser<br>30 | Ser       | Val       |
| Ser       | Ser       | Gln<br>35 | Glu       | Thr      | Gln       | Gly       | Gly<br>40 | Pro       | Leu       | Ala       | Pro       | Met<br>45 | Thr       | Gly       | Thr       |
| Ile       | Glu<br>50 | Lys       | Val       | Phe      | Val       | Lys<br>55 | Ala       | Gly       | Asp       | Lys       | Val<br>60 | Lys       | Ala       | Gly       | Asp       |
| Ser<br>65 | Leu       | Met       | Val       | Met      | Ile<br>70 | Ala       | Met       | Lys       | Met       | Glu<br>75 | His       | Thr       | Ile       | Lys       | Ser<br>80 |

|     |     |     |            |           |     |     |     |            |           |     |     |     |            |           |     |
|-----|-----|-----|------------|-----------|-----|-----|-----|------------|-----------|-----|-----|-----|------------|-----------|-----|
| Pro | Lys | Asp | Gly        | Thr<br>85 | Val | Lys | Lys | Val        | Phe<br>90 | Tyr | Arg | Glu | Gly        | Ala<br>95 | Gln |
| Ala | Asn | Arg | His<br>100 | Thr       | Pro | Leu | Val | Glu<br>105 | Phe       | Glu | Glu | Glu | Glu<br>110 | Ser       | Asp |
| Lys | Arg | Glu | Ser        | Glu       |     |     |     |            |           |     |     |     |            |           |     |

<210> 231  
 <211> 103  
 <212> PRT  
 <213> homo sapiens

<400> 231

|           |           |           |            |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ser<br>1  | Leu       | Arg       | Phe        | Thr<br>5  | Ser       | Asn       | Ser       | Ile       | Asn<br>10 | Arg       | Thr       | Phe       | Gln       | Val<br>15 | Ser       |
| Ala       | Val       | Ser       | Leu<br>20  | Ala       | Val       | Lys       | Ile       | Thr<br>25 | Lys       | Asp       | Leu       | Glu       | Ser<br>30 | Phe       | Ile       |
| Phe       | Asn       | Leu<br>35 | His        | Ala       | Ile       | Arg       | Pro<br>40 | Ile       | Met       | Val       | Ile       | Arg<br>45 | Tyr       | Ser       | Tyr       |
| Gly       | Tyr<br>50 | Ile       | Val        | Phe       | Thr       | Ile<br>55 | Phe       | Lys       | Ser       | His       | Val<br>60 | Ser       | Gly       | Ile       | Arg       |
| Asp<br>65 | Ile       | Gln       | Ser        | Ser       | Ser<br>70 | Thr       | Ala       | Arg       | Arg       | Lys<br>75 | Trp       | Arg       | Glu       | Leu       | Ile<br>80 |
| Met       | Cys       | Leu       | Lys        | Ser<br>85 | Glu       | Ser       | Val       | Gly       | His<br>90 | Gly       | Phe       | Leu       | Leu       | Glu<br>95 | Asp       |
| Glu       | Thr       | Gln       | Gly<br>100 | Cys       | Leu       | Ala       |           |           |           |           |           |           |           |           |           |

<210> 232  
 <211> 234  
 <212> PRT  
 <213> homo sapiens

<400> 232

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ala<br>1  | Asp       | Lys       | Met       | Phe<br>5  | Leu       | Leu       | Pro       | Leu       | Pro<br>10 | Ala       | Ala       | Gly       | Arg       | Val<br>15 | Val       |
| Val       | Arg       | Arg       | Leu<br>20 | Ala       | Val       | Arg       | Arg       | Phe<br>25 | Gly       | Ser       | Arg       | Ser       | Leu<br>30 | Ser       | Thr       |
| Ala       | Asp       | Met<br>35 | Thr       | Lys       | Gly       | Leu       | Val<br>40 | Leu       | Gly       | Ile       | Tyr       | Ser<br>45 | Lys       | Glu       | Lys       |
| Glu       | Asp<br>50 | Asp       | Val       | Pro       | Gln       | Phe<br>55 | Thr       | Ser       | Ala       | Gly       | Glu<br>60 | Asn       | Phe       | Asp       | Lys       |
| Leu<br>65 | Leu       | Ala       | Gly       | Lys       | Leu<br>70 | Arg       | Glu       | Thr       | Leu       | Asn<br>75 | Ile       | Ser       | Gly       | Pro       | Pro<br>80 |
| Leu       | Lys       | Ala       | Gly       | Lys<br>85 | Thr       | Arg       | Thr       | Phe       | Tyr<br>90 | Gly       | Leu       | His       | Gln       | Asp<br>95 | Phe       |
| Pro       | Ser       | Val       | Val       | Leu       | Val       | Gly       | Leu       | Gly       | Lys       | Lys       | Ala       | Ala       | Gly       | Ile       | Asp       |

00673395-122700

004227" 56EE2960

| 100 |     |     |     |     |     | 105 |     |     |     |     | 110 |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Gln | Glu | Asn | Trp | His | Glu | Gly | Lys | Glu | Asn | Ile | Arg | Ala | Ala | Val |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Ala | Ala | Gly | Cys | Arg | Gln | Ile | Gln | Asp | Leu | Glu | Leu | Ser | Ser | Val | Glu |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Val | Asp | Pro | Cys | Gly | Asp | Ala | Gln | Ala | Ala | Ala | Glu | Gly | Ala | Val | Leu |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Gly | Leu | Tyr | Glu | Tyr | Asp | Asp | Leu | Lys | Gln | Lys | Lys | Lys | Met | Ala | Val |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Ser | Ala | Lys | Leu | Tyr | Gly | Ser | Gly | Asp | Gln | Glu | Ala | Trp | Gln | Lys | Gly |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Val | Leu | Phe | Ala | Ser | Gly | Gln | Glu | Leu | Gly | His | Ala | Asn | Leu | Met | Gly |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Asp | Ala | Ser | Gln | Leu | Arg | Leu | Thr | Pro | Thr | Arg | Phe | Cys | Arg | Asn | Tyr |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Leu | Arg | Arg | Phe | Ser | Lys | Leu | Val | Val | Ser |     |     |     |     |     |     |
| 225 |     |     |     |     | 230 |     |     |     |     |     |     |     |     |     |     |

<210> 233  
 <211> 108  
 <212> PRT  
 <213> homo sapiens

<400> 233

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Pro | Ile | Leu | Lys | Ile | Phe | Ser | Asn | Asn | Phe | Gly | Lys | Ile | Trp | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ala | Ser | Ile | Ser | Ile | Gly | Trp | Arg | Leu | Pro | Ser | Asn | Trp | Arg | Ala | Gln |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Val | Leu | Ala | Gln | Lys | Gln | Thr | Gly | Leu | Leu | Ser | Ala | Arg | Pro | Pro | Asp |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Pro | His | Phe | His | Arg | Ala | Leu | Pro | Thr | Gln | Pro | Ser | Ser | Phe | Phe | Ala |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Leu | Gly | His | Arg | Ile | His | Arg | Asp | Gln | Ala | Pro | Leu | Pro | Pro | Gln | Gln |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Pro | Glu | Arg | Leu | His | Arg | Asp | Pro | Pro | Pro | Gln | Thr | Arg | Ala | Pro | Gly |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Leu | Glu | Ser | Ala | Cys | Thr | Pro | Leu | Gln | Gln | Gln | Leu |     |     |     |     |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     |     |     |     |

<210> 234  
 <211> 68  
 <212> PRT  
 <213> homo sapiens

<400> 234

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Phe | Leu | Cys | Leu | His | Ala | Ser | Phe | Pro | Val | Arg | Arg | Phe | Gln | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |

|           |           |           |           |     |     |           |           |           |     |     |           |           |           |     |     |
|-----------|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|-----|
| Pro       | Phe       | Cys       | Arg<br>20 | Gly | Gln | Leu       | Ala       | Pro<br>25 | Arg | Trp | Gly       | Ser       | Pro<br>30 | Asp | Ala |
| Asp       | His       | Lys<br>35 | Arg       | Phe | Glu | Ser       | Ser<br>40 | Leu       | Pro | Ser | Glu       | Val<br>45 | Val       | Gln | Ile |
| Cys       | Ser<br>50 | Lys       | Ser       | Leu | Ser | Ala<br>55 | Phe       | Gln       | Leu | Thr | Ile<br>60 | Tyr       | Gln       | Asn | Ser |
| Leu<br>65 | Leu       | His       | Leu       |     |     |           |           |           |     |     |           |           |           |     |     |

<210> 235  
 <211> 187  
 <212> PRT  
 <213> homo sapiens

<400> 235

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gln<br>1   | Arg        | Val        | Arg        | Ala<br>5   | Ala        | Leu        | Leu        | Ser        | Ser<br>10  | Ala        | Met        | Glu        | Asp        | Ser<br>15  | Glu        |
| Ala        | Leu        | Gly        | Phe<br>20  | Glu        | His        | Met        | Gly        | Leu<br>25  | Asp        | Pro        | Arg        | Leu        | Leu<br>30  | Gln        | Ala        |
| Val        | Thr        | Asp<br>35  | Leu        | Gly        | Trp        | Ser        | Arg<br>40  | Pro        | Thr        | Leu        | Ile        | Gln<br>45  | Glu        | Lys        | Ala        |
| Ile        | Pro<br>50  | Leu        | Ala        | Leu        | Glu        | Gly<br>55  | Lys        | Asp        | Leu        | Leu        | Ala<br>60  | Arg        | Ala        | Arg        | Thr        |
| Gly<br>65  | Ser        | Gly        | Lys        | Thr        | Ala<br>70  | Ala        | Tyr        | Ala        | Ile        | Pro<br>75  | Met        | Leu        | Gln        | Leu        | Leu<br>80  |
| Leu        | His        | Arg        | Lys        | Ala<br>85  | Thr        | Gly        | Pro        | Val        | Val<br>90  | Glu        | Gln        | Ala        | Val        | Arg<br>95  | Gly        |
| Leu        | Val        | Leu        | Val<br>100 | Pro        | Thr        | Lys        | Glu        | Leu<br>105 | Ala        | Arg        | Gln        | Ala        | Gln<br>110 | Ser        | Met        |
| Ile        | Gln        | Gln<br>115 | Leu        | Ala        | Thr        | Tyr        | Cys<br>120 | Ala        | Arg        | Asp        | Val        | Arg<br>125 | Val        | Ala        | Asn        |
| Val        | Ser<br>130 | Ala        | Ala        | Glu        | Asp        | Ser<br>135 | Val        | Ser        | Gln        | Arg        | Ala<br>140 | Val        | Leu        | Met        | Glu        |
| Lys<br>145 | Pro        | Asp        | Val        | Val        | Val<br>150 | Gly        | Thr        | Pro        | Ser        | Arg<br>155 | Ile        | Leu        | Ser        | His        | Leu<br>160 |
| Gln        | Gln        | Asp        | Ser        | Leu<br>165 | Lys        | Leu        | Arg        | Asp        | Ser<br>170 | Leu        | Glu        | Leu        | Leu        | Val<br>175 | Val        |
| Asp        | Glu        | Ala        | Asp<br>180 | Leu        | Leu        | Phe        | Ser        | Leu<br>185 | Trp        | Leu        |            |            |            |            |            |

<210> 236  
 <211> 76  
 <212> PRT  
 <213> homo sapiens

<400> 236

002227"563395"122700

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| Asp<br>1  | Ile       | Gly       | His       | Ser<br>5 | Asp       | Ile       | Pro       | Ser       | Thr<br>10 | Val       | Gly       | Ser       | Gln       | Leu<br>15 | Leu |
| Asn       | His       | Gly       | Leu<br>20 | Cys      | Leu       | Pro       | Cys       | Gln<br>25 | Leu       | Leu       | Gly       | Arg       | Asn<br>30 | Lys       | Asn |
| Lys       | Ala       | Ser<br>35 | His       | Cys      | Leu       | Phe       | Tyr<br>40 | His       | Arg       | Thr       | Cys       | Arg<br>45 | Leu       | Pro       | Met |
| Glu       | Gln<br>50 | Gln       | Leu       | Gln      | His       | Arg<br>55 | Asn       | Ser       | Ile       | Ser       | Gly<br>60 | Arg       | Leu       | Pro       | Gly |
| Ala<br>65 | Arg       | Ala       | Gly       | Pro      | Ser<br>70 | Gln       | Glu       | Val       | Leu       | Pro<br>75 | Phe       |           |           |           |     |

<210> 237  
 <211> 112  
 <212> PRT  
 <213> homo sapiens

<400> 237

|           |           |           |            |           |           |           |           |            |           |           |           |           |            |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Thr<br>1  | Gly       | Leu       | Cys        | Asn<br>5  | Ile       | Ser       | Ser       | Leu        | Ser<br>10 | Ala       | Cys       | Thr       | Ser        | Ser<br>15 | Leu       |
| Lys       | Val       | Ala       | Asp<br>20  | Met       | Arg       | Lys       | Ala       | Leu<br>25  | Leu       | Lys       | Ser       | Gly       | Gly<br>30  | Lys       | Val       |
| Thr       | Arg       | Gly<br>35 | Arg        | Leu       | Leu       | Glu       | Leu<br>40 | Phe        | Phe       | Lys       | Ala       | Lys<br>45 | Gly        | Lys       | Lys       |
| Glu       | Gly<br>50 | Gln       | Leu        | Arg       | Pro       | Pro<br>55 | Pro       | Lys        | Ala       | Pro       | Gly<br>60 | Ser       | His        | Glu       | Val       |
| Ser<br>65 | Gly       | Cys       | Leu        | Ala       | Ala<br>70 | Ser       | Gly       | Leu        | Ile       | Cys<br>75 | Glu       | Met       | Gly        | Ser       | Leu<br>80 |
| Leu       | Pro       | His       | Leu        | Ala<br>85 | Ser       | Pro       | Ser       | Ala        | Gln<br>90 | Leu       | Ser       | Glu       | Arg        | Leu<br>95 | Ser       |
| Leu       | Gln       | Gln       | Leu<br>100 | Arg       | His       | Trp       | Pro       | Leu<br>105 | Gly       | His       | Pro       | Glu       | His<br>110 | Ser       | Arg       |

<210> 238  
 <211> 108  
 <212> PRT  
 <213> homo sapiens

<400> 238

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Cys<br>1 | His       | Ala       | Arg       | Leu<br>5 | Asn | Thr       | Asp       | Ser       | Ser<br>10 | Arg | Leu       | Ala       | Met       | Lys<br>15 | Leu |
| Leu      | Met       | Val       | Leu<br>20 | Met      | Leu | Ala       | Ala       | Leu<br>25 | Leu       | Leu | His       | Cys       | Tyr<br>30 | Ala       | Asp |
| Ser      | Gly       | Cys<br>35 | Lys       | Leu      | Leu | Glu       | Asp<br>40 | Met       | Val       | Glu | Lys       | Thr<br>45 | Ile       | Asn       | Ser |
| Asp      | Ile<br>50 | Ser       | Ile       | Pro      | Glu | Tyr<br>55 | Lys       | Glu       | Leu       | Leu | Gln<br>60 | Glu       | Phe       | Ile       | Asp |
| Ser      | Asp       | Ala       | Ala       | Ala      | Glu | Ala       | Met       | Gly       | Lys       | Phe | Lys       | Gln       | Cys       | Phe       | Leu |

002227 9662960





|     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Asp | Lys | Asp | Pro | Val | Phe | Ser |
|     | 50  |     |     |     |     | 55  |     |

<210> 242  
 <211> 52  
 <212> PRT  
 <213> homo sapiens

<400> 242

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Phe | Val | Ala | Met | Gly | Gln | Thr | Arg | Thr | Pro | Ser | Ser | Ala | Glu | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg | Lys | Ser | Pro | Ala | Thr | Ser | Leu | Ala | Ile | Lys | Leu | Gln | Pro | Ser | His |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Pro | Thr | Arg | Ala | Ser | Glu | Glu | Trp | Pro | Leu | Leu | Ala | Gly | Asn | Pro | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Gln | Trp | Ala | Ser |     |     |     |     |     |     |     |     |     |     |     |     |
|     | 50  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 243  
 <211> 67  
 <212> PRT  
 <213> homo sapiens

<400> 243

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Pro | Lys | Met | Ser | Gln | Asp | Phe | Ser | Leu | Val | Gln | Leu | Lys | Thr | Gly |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser | Leu | Ser | Val | Pro | Trp | Pro | Gln | Lys | Phe | Arg | Leu | Thr | Gly | Cys | Leu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Lys | Gly | Asp | Arg | Ser | Arg | Thr | Phe | Leu | Gly | Glu | Lys | Glu | Lys | Trp | Gly |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Lys | Gln | Arg | Ser | Ser | Ile | Arg | Ser | Glu | Ser | Leu | Leu | Glu | Ser | Phe | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Pro | Thr | Ala |     |     |     |     |     |     |     |     |     |     |     |     |     |
|     | 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 244  
 <211> 64  
 <212> PRT  
 <213> homo sapiens

<400> 244

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Ser | Trp | Ala | Glu | Asp | Phe | Lys | Cys | Asp | Ile | Ser | Val | Pro | Lys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Thr | Ser | Leu | Leu | Phe | Ala | Gln | Ser | Cys | Arg | Ser | Met | Tyr | Phe | Leu | Leu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gln | Tyr | Val | Pro | Ile | Tyr | Lys | Phe | Ile | Ser | His | Thr | Tyr | Asn | Arg | Ala |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| His | Val | Cys | Thr | Cys | Thr | Arg | Thr | His | Thr | His | Ser | Leu | Ser | Thr | Arg |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

002227 5652960

<210> 245  
 <211> 74  
 <212> PRT  
 <213> homo sapiens

<400> 245

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Pro | Leu | Leu | Pro | Ala | Lys | Asn | Arg | Glu | Val | Ala | Gly | Leu | Lys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Thr | Leu | Ser | Val | Thr | Phe | Gln | Phe | Leu | Lys | His | His | Cys | Tyr | Leu | Leu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Lys | Val | Val | Gly | Leu | Cys | Ile | Ser | Phe | Ser | Asn | Thr | Ser | Pro | Phe | Ile |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Leu | Phe | Pro | Ile | His | Thr | Thr | Val | His | Met | Cys | Ala | Arg | Ala | His |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ala | His | Thr | His | Thr | His | Ser | Gln | Leu | Val |     |     |     |     |     |     |
| 65  |     |     |     |     | 70  |     |     |     |     |     |     |     |     |     |     |

<210> 246  
 <211> 69  
 <212> PRT  
 <213> homo sapiens

<400> 246

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Ile | Gln | Thr | Pro | Glu | Gln | His | Ser | Gln | Val | Thr | Leu | Phe | Asp |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Tyr | Asn | Glu | Glu | Met | Lys | Met | Gly | Gly | Tyr | Leu | Lys | Ile | Gly | Ile | Pro |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ser | Ala | Leu | Lys | Val | Ser | Lys | Leu | Leu | Thr | Cys | Glu | Gln | His | Arg | Thr |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Pro | Leu | Leu | Trp | Ser | Ser | Phe | Gln | Leu | Arg | Met | Leu | Gln | Phe | Ser | Lys |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ser | Ile | Tyr | Tyr | Ser |     |     |     |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 247  
 <211> 236  
 <212> PRT  
 <213> homo sapiens

<400> 247

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Leu | Arg | Gly | Gly | Val | Gln | Arg | His | Asp | Arg | Arg | Glu | Gly | Glu | Met |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Val | Cys | Val | Glu | Leu | Val | Ala | Ser | Asp | Lys | Thr | Asn | Thr | Phe | Gln | Gly |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Val | Ile | Phe | Gln | Gly | Ser | Ile | Arg | Tyr | Glu | Ala | Leu | Lys | Lys | Val | Tyr |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Asp | Asn | Arg | Val | Ser | Val | Ala | Ala | Arg | Met | Ala | Gln | Lys | Met | Ser | Phe |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

09673395-122700

00673395-122700

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gly<br>65  | Phe        | Tyr        | Lys        | Tyr        | Ser<br>70  | Asn        | Met        | Glu        | Phe        | Val<br>75  | Arg        | Met        | Lys        | Gly        | Pro<br>80  |
| Gln        | Gly        | Lys        | Gly        | His<br>85  | Ala        | Glu        | Met        | Ala        | Val<br>90  | Ser        | Arg        | Val        | Ser        | Thr<br>95  | Gly        |
| Asp        | Thr        | Ala        | Pro<br>100 | Cys        | Gly        | Thr        | Glu        | Glu<br>105 | Asp        | Ser        | Ser        | Pro        | Ala<br>110 | Ser        | Pro        |
| Met        | His        | Glu<br>115 | Arg        | Val        | Thr        | Ser        | Phe<br>120 | Ser        | Arg        | Pro        | Pro        | Thr<br>125 | Pro        | Glu        | Arg        |
| Asn        | Asn<br>130 | Arg        | Pro        | Ala        | Phe        | Phe<br>135 | Ser        | Pro        | Ser        | Leu        | Lys<br>140 | Arg        | Lys        | Val        | Pro        |
| Arg<br>145 | Asn        | Arg        | Ile        | Ala        | Glu<br>150 | Met        | Lys        | Lys        | Ser        | His<br>155 | Ser        | Ala        | Asn        | Asp        | Ser<br>160 |
| Glu        | Glu        | Phe        | Phe        | Arg<br>165 | Glu        | Asp        | Asp        | Gly        | Gly<br>170 | Ala        | Asp        | Leu        | His        | Asn<br>175 | Ala        |
| Thr        | Asn        | Leu        | Arg<br>180 | Ser        | Arg        | Ser        | Leu        | Ser<br>185 | Gly        | Thr        | Gly        | Arg        | Ser<br>190 | Leu        | Val        |
| Gly        | Ser        | Trp<br>195 | Leu        | Lys        | Leu        | Asn        | Arg<br>200 | Ala        | Asp        | Gly        | Asn        | Phe<br>205 | Leu        | Leu        | Tyr        |
| Ala        | His<br>210 | Leu        | Thr        | Tyr        | Val        | Thr<br>215 | Leu        | Pro        | Leu        | His        | Arg<br>220 | Ile        | Leu        | Thr        | Asp        |
| Ile<br>225 | Leu        | Glu        | Val        | Arg        | Gln<br>230 | Lys        | Pro        | Ile        | Leu        | Met<br>235 | Thr        |            |            |            |            |

<210> 248  
 <211> 161  
 <212> PRT  
 <213> homo sapiens

<400> 248

|           |           |           |            |           |           |           |           |            |           |           |           |           |            |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Asp<br>1  | Glu       | Glu       | Val        | Ala<br>5  | Leu       | Gly       | Gln       | Arg        | Gln<br>10 | Arg       | Gly       | Val       | Leu        | Pro<br>15 | Gly       |
| Gly       | Arg       | Arg       | Trp<br>20  | Ser       | Arg       | Ser       | Ala       | Gln<br>25  | Cys       | Asn       | Gln       | Pro       | Ala<br>30  | Val       | Ser       |
| Val       | Pro       | Val<br>35 | Gly        | His       | Arg       | Thr       | Val<br>40 | Pro        | Gly       | Arg       | Val       | Leu<br>45 | Ala        | Glu       | Ala       |
| Glu       | Gln<br>50 | Ser       | Arg        | Trp       | Lys       | Leu<br>55 | Pro       | Ser        | Leu       | Cys       | Thr<br>60 | Leu       | Asn        | Leu       | Arg       |
| His<br>65 | Val       | Ala       | Ala        | Ala       | Ser<br>70 | Asp       | Phe       | Asn        | Arg       | His<br>75 | Pro       | Gly       | Ser        | Ser       | Ala<br>80 |
| Glu       | Ala       | His       | Pro        | Asp<br>85 | Asp       | Leu       | Ala       | Ala        | Cys<br>90 | Gly       | Ala       | Cys       | Ala        | Glu<br>95 | Pro       |
| Arg       | Pro       | Gly       | Pro<br>100 | Ala       | Leu       | Gly       | Val       | Leu<br>105 | Pro       | Ser       | Ala       | Tyr       | Leu<br>110 | Ser       | Thr       |
| Ala       | Thr       | Gly       | Val        | Cys       | Asp       | Gly       | Thr       | Pro        | Val       | Leu       | Glu       | Pro       | Gln        | Pro       | Gly       |

|            |            |     |     |     |            |            |     |     |     |            |            |     |     |     |            |
|------------|------------|-----|-----|-----|------------|------------|-----|-----|-----|------------|------------|-----|-----|-----|------------|
| 115        |            |     |     |     |            | 120        |     |     |     |            | 125        |     |     |     |            |
| Glu        | Ala<br>130 | Thr | Arg | Leu | Pro        | Gly<br>135 | Pro | Gly | Pro | Thr        | Ala<br>140 | Arg | Thr | Pro | Ala        |
| Gln<br>145 | Thr        | Glu | Val | Pro | Leu<br>150 | Thr        | Gly | Pro | Ala | Gly<br>155 | Ala        | Ala | Ser | Ala | Leu<br>160 |

Cys

```
<210> 249
<211> 218
<212> PRT
<213> homo sapiens
```

<400> 249

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Val<br>1   | Cys        | Ile        | Glu        | Lys<br>5   | Glu        | Val        | Ser        | Ile        | Cys<br>10  | Ser        | Val        | Gln        | Leu        | Gln<br>15  | Pro        |
| Gly        | Pro        | Asp        | Gln<br>20  | Gly        | Pro        | Ser        | Cys        | Ala<br>25  | Arg        | Gln        | Gly        | Pro        | Arg<br>30  | Pro        | Gln        |
| Val        | Gly        | Cys<br>35  | Ile        | Val        | Gln        | Ile        | Gly<br>40  | Ser        | Thr        | Val        | Val        | Leu<br>45  | Pro        | Glu        | Glu        |
| Leu        | Leu<br>50  | Ala        | Val        | Val        | Gly        | Arg<br>55  | Val        | Arg        | Leu        | Leu        | His<br>60  | Leu        | Ser        | Asp        | Pro        |
| Val<br>65  | Pro        | Gly        | His        | Leu        | Pro<br>70  | Leu        | Glu        | Gly        | Trp        | Gly<br>75  | Glu        | Glu        | Gly        | Arg        | Pro<br>80  |
| Val        | Val        | Pro        | Phe        | Trp<br>85  | Gly        | Gly        | Gly        | Ser        | Ala<br>90  | Glu        | Gly        | Gly        | His        | Pro<br>95  | Leu        |
| Val        | His        | Gly        | Arg<br>100 | Ser        | Trp        | Ala        | Gly        | Val<br>105 | Leu        | Phe        | Ser        | Pro        | Thr<br>110 | Gly        | Gly        |
| Cys        | Val        | Thr<br>115 | Cys        | Arg        | His        | Ser        | Ala<br>120 | Asp        | Arg        | His        | Leu        | Gly<br>125 | Val        | Ala        | Leu        |
| Ala        | Leu<br>130 | Gly        | Ala        | Leu        | His        | Ala<br>135 | His        | Lys        | Leu        | His        | Val<br>140 | Ala        | Val        | Leu        | Val        |
| Glu<br>145 | Ala        | Lys        | Arg        | His        | Leu<br>150 | Leu        | Cys        | His        | Ala        | Gly<br>155 | Gly        | His        | Ala        | His        | Pro<br>160 |
| Val        | Val        | Ile        | His        | Leu<br>165 | Leu        | Glu        | Arg        | Leu        | Val<br>170 | Ala        | Asp        | Gly        | Ala        | Leu<br>175 | Lys        |
| Asp        | Asp        | Pro        | Leu<br>180 | Glu        | Arg        | Val        | Gly        | Phe<br>185 | Val        | Thr        | Ser        | His        | Gln<br>190 | Leu        | His        |
| Thr        | Asp        | His<br>195 | Leu        | Ser        | Phe        | Pro        | Thr<br>200 | Val        | Met        | Ser        | Leu        | Asn<br>205 | Thr        | Ser        | Ser        |
| Lys        | Leu<br>210 | Ser        | Ile        | Met        | Lys        | Lys<br>215 | Met        | Leu        | Gly        |            |            |            |            |            |            |

```
<210> 250
<211> 133
<212> PRT
<213> homo sapiens
```

[illegible]

00673395-122700

<400> 250

|           |            |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
|-----------|------------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Tyr<br>1  | Pro        | Gln        | Asp        | Pro<br>5  | Pro       | Gly       | Gly        | Ala        | Ser<br>10 | Arg       | Arg       | Leu        | Leu        | Asp<br>15 | Asp       |
| Leu       | Glu        | Leu        | Cys<br>20  | Pro       | Gly       | Glu       | Lys        | Thr<br>25  | Ala       | Pro       | Val       | Trp        | Ala<br>30  | Leu       | Ser       |
| Ala       | Glu        | Glu<br>35  | Glu        | Ala       | Ala       | Met       | His<br>40  | Phe        | Ser       | Leu       | Ala       | Phe<br>45  | Phe        | Leu       | His       |
| Gly       | Ser<br>50  | Ser        | Val        | Phe       | Leu       | Gln<br>55 | Ile        | Thr        | Cys       | Cys       | His<br>60 | Glu        | Phe        | Leu       | Cys       |
| Met<br>65 | Arg        | His        | Ile        | Ser       | Ser<br>70 | Cys       | Leu        | Tyr        | Ala       | Glu<br>75 | Val       | Pro        | Phe        | Ile       | Leu<br>80 |
| Ser       | Ile        | Gly        | Trp        | Trp<br>85 | Thr       | Gly       | Glu        | Arg        | Gly<br>90 | Pro       | Arg       | Cys        | Pro        | Thr<br>95 | Ser       |
| Cys       | Ala        | Ser        | Ala<br>100 | Val       | Gly       | Gly       | Asp        | Arg<br>105 | Ala       | Pro       | Arg       | His        | Gly<br>110 | Gly       | Gly       |
| Gly       | His        | Leu<br>115 | Pro        | His       | Val       | Trp       | Gly<br>120 | Gly        | Arg       | Arg       | His       | Pro<br>125 | Gly        | Thr       | Glu       |
| Gly       | Ser<br>130 | Leu        | Gln        | Arg       |           |           |            |            |           |           |           |            |            |           |           |

<210> 251

<211> 71

<212> PRT

<213> homo sapiens

<400> 251

|           |           |           |           |          |           |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Arg<br>1  | Leu       | Pro       | Ser       | Val<br>5 | Pro       | Gly       | Cys       | Leu       | Arg<br>10 | Pro | Pro       | Gln       | Thr       | Cys<br>15 | Gly |
| Arg       | Cys       | Pro       | Pro<br>20 | Pro      | Pro       | Cys       | Leu       | Gly<br>25 | Ala       | Arg | Ser       | Pro       | Pro<br>30 | Thr       | Ala |
| Leu       | Ala       | His<br>35 | Asp       | Val      | Gly       | His       | Leu<br>40 | Gly       | Pro       | Leu | Ser       | Pro<br>45 | Val       | His       | Gln |
| Pro       | Ile<br>50 | Glu       | Arg       | Met      | Lys       | Gly<br>55 | Thr       | Ser       | Ala       | Tyr | Arg<br>60 | His       | Asp       | Glu       | Ile |
| Cys<br>65 | Leu       | Met       | His       | Lys      | Asn<br>70 | Ser       |           |           |           |     |           |           |           |           |     |

<210> 252

<211> 95

<212> PRT

<213> homo sapiens

<400> 252

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Arg<br>1 | Gly | Leu | Gln | His<br>5 | Thr | Asp | Met | Met | Lys<br>10 | Tyr | Ala | Ser | Cys | Ile<br>15 | Lys |
| Ile      | His | Asp | Asn | Met      | Leu | Phe | Ala | Lys | Lys       | Gln | Thr | Asn | His | Ala       | Gly |

002227 09673395 122700

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Lys | Met | Pro | Gly | Lys | Ser | Ala | Trp | Gln | Leu | Pro | Pro | Gln | His | Ser | Gly |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Pro | Thr | Gln | Glu | Arg | Phe | Ser | Pro | Gln | Asp | Thr | Ala | Pro | Ser | Arg | Pro |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Glu | Ala | Ser | Val | Met | Pro | Leu | Leu | Ala | Gly | Pro | Glu | Gly | Ile | Arg | Ala |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Pro | Leu | Leu | Leu | Thr | Val | Asp | Ala | Ala | Thr | His | Ser | Met | Gln | His |     |  |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |

<210> 253  
 <211> 194  
 <212> PRT  
 <213> homo sapiens

<400> 253

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Gln | Lys | Lys | Lys | Met | Ser | Phe | Arg | Lys | Val | Asn | Ile | Ile | Ile | Leu | Val |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Leu | Ala | Val | Ala | Leu | Phe | Leu | Leu | Val | Leu | His | His | Asn | Phe | Leu | Ser |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Leu | Ser | Ser | Leu | Leu | Arg | Asn | Glu | Val | Thr | Asp | Ser | Gly | Ile | Val | Gly |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Pro | Gln | Pro | Ile | Asp | Phe | Val | Pro | Asn | Ala | Leu | Arg | His | Ala | Val | Asp |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Gly | Arg | Gln | Glu | Glu | Ile | Pro | Val | Val | Ile | Ala | Ala | Ser | Glu | Asp | Arg |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Leu | Gly | Gly | Ala | Ile | Ala | Ala | Ile | Asn | Ser | Ile | Gln | His | Asn | Thr | Arg |  |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |
| Ser | Asn | Val | Ile | Phe | Tyr | Ile | Val | Thr | Leu | Asn | Asn | Thr | Ala | Asp | His |  |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |
| Leu | Arg | Ser | Trp | Leu | Asn | Ser | Asp | Ser | Leu | Lys | Ser | Ile | Arg | Tyr | Lys |  |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |
| Ile | Val | Asn | Phe | Asp | Pro | Lys | Leu | Leu | Glu | Gly | Lys | Val | Lys | Glu | Asp |  |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |  |
| Pro | Asp | Gln | Gly | Glu | Ser | Met | Lys | Pro | Leu | Thr | Phe | Ala | Arg | Phe | Tyr |  |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |  |
| Leu | Pro | Ile | Leu | Gly | Ser | Gln | Arg | Gln | Arg | Lys | Ala | Arg | Leu | His | Gly |  |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |  |
| Val | Asp | Asp | Val | Ile | Cys | Gly | Arg | Trp | Asp | Phe | Leu | Pro | Phe | Thr | Leu |  |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |  |
| Gln | Gln |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 254  
 <211> 109  
 <212> PRT  
 <213> homo sapiens

<400> 254

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Arg<br>1  | Phe       | His       | Gly        | Phe<br>5  | Pro       | Leu       | Val       | Arg        | Ile<br>10 | Leu       | Leu       | Tyr       | Phe       | Ser<br>15 | Phe       |
| Gln       | Lys       | Phe       | Arg<br>20  | Val       | Lys       | Ile       | Asp       | Asn<br>25  | Phe       | Val       | Ser       | Asp       | Ala<br>30 | Phe       | Gln       |
| Gly       | Ile       | Thr<br>35 | Val        | Glu       | Pro       | Gly       | Pro<br>40 | Glu        | Met       | Val       | Cys       | Cys<br>45 | Ile       | Val       | Glu       |
| Ser       | Asn<br>50 | Asn       | Val        | Glu       | Asn       | His<br>55 | Ile       | Gly        | Ala       | Ser       | Val<br>60 | Val       | Leu       | Asn       | Ala       |
| Val<br>65 | Tyr       | Ser       | Cys        | Asn       | Gly<br>70 | Pro       | Pro       | Lys        | Pro       | Val<br>75 | Phe       | Arg       | Cys       | Ser       | Asp<br>80 |
| Asp       | His       | Arg       | Asn        | Leu<br>85 | Leu       | Leu       | Ser       | Pro        | Ile<br>90 | Tyr       | Cys       | Met       | Ser       | Glu<br>95 | Ser       |
| Ile       | Trp       | Asp       | Lys<br>100 | Val       | Tyr       | Arg       | Leu       | Arg<br>105 | Pro       | Tyr       | Asn       | Ser       |           |           |           |

<210> 255

<211> 57

<212> PRT

<213> homo sapiens

<400> 255

|          |           |           |           |          |     |           |           |           |           |     |     |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Asn<br>1 | Leu       | Ala       | Lys       | Val<br>5 | Lys | Gly       | Phe       | Met       | Asp<br>10 | Ser | Pro | Trp       | Ser       | Gly<br>15 | Ser |
| Ser      | Phe       | Thr       | Phe<br>20 | Pro      | Ser | Lys       | Ser       | Leu<br>25 | Gly       | Ser | Lys | Leu       | Thr<br>30 | Ile       | Leu |
| Tyr      | Leu       | Met<br>35 | Leu       | Phe      | Arg | Glu       | Ser<br>40 | Leu       | Leu       | Ser | Gln | Asp<br>45 | Arg       | Arg       | Trp |
| Ser      | Ala<br>50 | Val       | Leu       | Leu      | Arg | Val<br>55 | Thr       | Met       |           |     |     |           |           |           |     |

<210> 256

<211> 230

<212> PRT

<213> homo sapiens

<400> 256

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Leu<br>1 | Pro       | Ala       | Ala       | Thr<br>5 | Asn | Arg       | Leu       | Lys       | Arg<br>10 | Gly | Lys       | Gly       | Ser       | Ser<br>15 | Thr |
| Gly      | Ser       | Ser       | Ser<br>20 | Gly      | Asn | His       | Gly       | Gly<br>25 | Ser       | Gly | Gly       | Gly       | Asn<br>30 | Gly       | His |
| Lys      | Pro       | Gly<br>35 | Cys       | Glu      | Lys | Pro       | Gly<br>40 | Asn       | Glu       | Ala | Arg       | Gly<br>45 | Ser       | Gly       | Lys |
| Ser      | Gly<br>50 | Ile       | Gln       | Gly      | Phe | Arg<br>55 | Gly       | Gln       | Gly       | Val | Ser<br>60 | Ser       | Asn       | Met       | Arg |
| Glu      | Ile       | Ser       | Lys       | Glu      | Gly | Asn       | Arg       | Leu       | Leu       | Gly | Gly       | Ser       | Gly       | Asp       | Asn |

00673395-122700



002221-56EE2960

| 65                 |            |            |            | 70         |            |            |            | 75         |            |            |            | 80         |            |            |            |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Tyr                | Arg        | Gly        | Gln        | Gly<br>85  | Ser        | Ser        | Trp        | Gly        | Ser<br>90  | Gly        | Gly        | Gly        | Asp        | Ala<br>95  | Val        |
| Gly                | Gly        | Val        | Asn<br>100 | Thr        | Val        | Asn        | Ser        | Glu<br>105 | Thr        | Ser        | Pro        | Gly        | Met<br>110 | Phe        | Asn        |
| Phe                | Asp        | Thr<br>115 | Phe        | Trp        | Lys        | Asn        | Phe<br>120 | Lys        | Ser        | Lys        | Leu        | Gly<br>125 | Phe        | Ile        | Asn        |
| Trp                | Asp<br>130 | Ala        | Ile        | Asn        | Lys        | Asn<br>135 | Gln        | Val        | Pro        | Pro        | Pro<br>140 | Ser        | Thr        | Arg        | Ala        |
| Leu<br>145         | Leu        | Tyr        | Phe        | Ser        | Arg<br>150 | Leu        | Trp        | Glu        | Asp        | Phe<br>155 | Lys        | Gln        | Asn        | Thr        | Pro<br>160 |
| Phe                | Leu        | Asn        | Trp        | Lys<br>165 | Ala        | Ile        | Ile        | Glu        | Gly<br>170 | Ala        | Asp        | Ala        | Ser        | Ser<br>175 | Leu        |
| Gln                | Lys        | Arg        | Ala<br>180 | Gly        | Arg        | Ala        | Glu        | Ser<br>185 | Glu        | Leu        | Gln        | Leu        | Gln<br>190 | Pro        | Ala        |
| Cys                | Val        | Ser<br>195 | His        | Cys        | Leu        | Trp        | Trp<br>200 | Glu        | Val        | Leu        | Ser        | Gln<br>205 | Asp        | Pro        | Cys        |
| Lys                | Gly<br>210 | Gly        | Glu        | Ser        | His        | Leu<br>215 | Leu        | Pro        | Arg        | Leu        | Pro<br>220 | Gly        | Cys        | Asn        | Leu        |
| Gly<br>225         | Leu        | Leu        | Ala        | Val        | Gly<br>230 |            |            |            |            |            |            |            |            |            |            |
| <210> 257          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| <211> 141          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| <212> PRT          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| <213> homo sapiens |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| <400> 257          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| Thr<br>1           | Arg        | Thr        | Arg        | Ser<br>5   | Arg        | Pro        | Pro        | Ala        | Pro<br>10  | Glu        | Pro        | Ser        | Ser        | Thr<br>15  | Ser        |
| Ala                | Asp        | Ser        | Gly<br>20  | Arg        | Ile        | Ser        | Asn        | Arg<br>25  | Thr        | Leu        | Leu        | Ser        | Ser<br>30  | Thr        | Gly        |
| Lys                | Gln        | Leu<br>35  | Leu        | Arg        | Val        | Arg        | Thr<br>40  | Arg        | His        | His        | Cys        | Arg<br>45  | Asn        | Val        | Gln        |
| Ala                | Glu<br>50  | Pro        | Ser        | Gln        | Asn        | Tyr<br>55  | Asn        | Tyr        | Asn        | Gln        | His<br>60  | Ala        | Tyr        | Pro        | Thr        |
| Ala<br>65          | Tyr        | Gly        | Gly        | Lys        | Tyr<br>70  | Ser        | Val        | Lys        | Thr        | Pro<br>75  | Ala        | Lys        | Gly        | Gly        | Ser<br>80  |
| Leu                | Thr        | Phe        | Phe        | Leu<br>85  | Gly        | Phe        | Pro        | Gly        | Ala<br>90  | Thr        | Trp        | Ala        | Cys        | Leu<br>95  | Gln        |
| Leu                | Gly        | Glu        | Val<br>100 | Leu        | Val        | Arg        | Gln        | Phe<br>105 | Leu        | Ala        | Thr        | Asn        | His<br>110 | Arg        | Arg        |
| Pro                | Arg        | Lys<br>115 | Lys        | His        | Trp        | Val        | Arg<br>120 | Gln        | Gly        | Lys        | Leu        | Leu<br>125 | Pro        | Pro        | Leu        |

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Pro | Ala | Leu | Trp | Gln | Ala | Pro | Gly | Pro | Gly | Leu |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |

<210> 258  
 <211> 165  
 <212> PRT  
 <213> homo sapiens

<400> 258

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Arg | Thr | Leu | Asn | Asn | Cys | Phe | Pro | Val | Glu | Glu | Arg | Ser | Val |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | Phe | Glu | Ile | Leu | Pro | Glu | Ser | Ala | Glu | Val | Glu | Glu | Gly | Ser | Gly |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ala | Gly | Gly | Arg | Asp | Leu | Val | Leu | Val | Tyr | Gly | Ile | Pro | Val | Asp | Glu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Thr | Gln | Leu | Gly | Phe | Lys | Ile | Leu | Pro | Glu | Ser | Val | Lys | Val | Lys | His |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Pro | Arg | Arg | Arg | Leu | Arg | Val | His | Ser | Ile | Asp | Ser | Thr | Asn | Ser | Val |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Thr | Ser | Ser | Thr | Ala | Pro | Ala | Arg | Pro | Leu | Pro | Pro | Ile | Ile | Val | Ser |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Arg | Ala | Ser | Lys | Glu | Ala | Ile | Ala | Leu | Phe | Ala | Tyr | Phe | Pro | His | Val |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Ala | Gly | Asn | Ser | Leu | Ser | Ser | Glu | Ala | Leu | Asn | Pro | Arg | Phe | Pro | Ala |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Pro | Ala | Gly | Phe | Ile | Pro | Trp | Leu | Phe | Thr | Pro | Gly | Phe | Met | Ser | Ile |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Ser | Ser | Ala | Ala | Pro | Thr | Val | Val | Ala | Gly | Gly | Gly | Ala | Gly | Ala | Gly |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Ser | Leu | Pro | Pro | Leu |     |     |     |     |     |     |     |     |     |     |     |
|     |     |     |     | 165 |     |     |     |     |     |     |     |     |     |     |     |

<210> 259  
 <211> 126  
 <212> PRT  
 <213> homo sapiens

<400> 259

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Ser | His | Leu | Gln | Pro | Gly | Ala | Val | Gly | Ile | Thr | Glu | Ser | Pro |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ile | Leu | Gly | Leu | Gly | Ser | Ala | Met | Thr | Thr | Glu | Ile | Gly | Trp | Trp | Lys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | Thr | Phe | Leu | Arg | Lys | Lys | Lys | Ser | Thr | Pro | Lys | Val | Leu | Tyr | Glu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ile | Pro | Asp | Thr | Tyr | Ala | Gln | Thr | Glu | Gly | Asp | Ala | Glu | Pro | Pro | Arg |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Pro | Asp | Ala | Gly | Gly | Pro | Asn | Ser | Asp | Phe | Asn | Thr | Arg | Leu | Glu | Lys |

004227" 5622960

|     |     |            |            |           |     |     |            |            |           |     |     |            |            |           |     |
|-----|-----|------------|------------|-----------|-----|-----|------------|------------|-----------|-----|-----|------------|------------|-----------|-----|
| 65  |     |            |            |           | 70  |     |            |            |           | 75  |     |            |            |           | 80  |
| Ile | Val | Asp        | Lys        | Ser<br>85 | Thr | Lys | Gly        | Lys        | His<br>90 | Val | Lys | Val        | Ser        | Asn<br>95 | Ser |
| Gly | Arg | Phe        | Lys<br>100 | Glu       | Lys | Lys | Lys        | Val<br>105 | Arg       | Ala | Thr | Leu        | Ala<br>110 | Glu       | Asn |
| Pro | Asn | Leu<br>115 | Phe        | Asp       | Asp | His | Glu<br>120 | Glu        | Gly       | Arg | Ser | Ser<br>125 | Lys        |           |     |

<210> 260  
 <211> 121  
 <212> PRT  
 <213> homo sapiens

<400> 260

|           |           |            |            |           |           |           |            |            |           |           |           |           |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Tyr<br>1  | Val       | Leu        | Asn        | Thr<br>5  | Ile       | Ile       | Val        | Gly        | Lys<br>10 | Gly       | Glu       | Glu       | Lys        | Ile<br>15 | Pro       |
| His       | Pro       | Leu        | Pro<br>20  | Arg       | Phe       | Gly       | Pro        | Cys<br>25  | Ser       | Phe       | Pro       | Leu       | Arg<br>30  | Val       | Cys       |
| Asp       | Leu       | Pro<br>35  | Ser        | Ala       | Lys       | Val       | Met<br>40  | Ala        | Lys       | Thr       | Gly       | Thr<br>45 | Asn        | Arg       | Pro       |
| Asn       | Tyr<br>50 | His        | Gln        | Ser       | Ser       | Leu<br>55 | Leu        | Gln        | His       | Pro       | Asn<br>60 | Arg       | Val        | Pro       | Gly       |
| Ser<br>65 | Ser       | Val        | Pro        | Ser       | Ala<br>70 | Pro       | Glu        | Gly        | Lys       | Val<br>75 | Pro       | Gly       | Ser        | Leu       | Leu<br>80 |
| Pro       | Val       | Leu        | Gly        | Gly<br>85 | Glu       | Leu       | Lys        | Phe        | Ser<br>90 | Val       | Ser       | Ala       | Ser        | Gly<br>95 | Ser       |
| Thr       | Glu       | Thr        | Ser<br>100 | Pro       | Tyr       | His       | Val        | Ala<br>105 | Ser       | Gly       | Lys       | Cys       | Ala<br>110 | Leu       | Leu       |
| Arg       | Ile       | Gly<br>115 | Pro        | Gly       | Ser       | Ser       | His<br>120 | Arg        |           |           |           |           |            |           |           |

<210> 261  
 <211> 86  
 <212> PRT  
 <213> homo sapiens

<400> 261

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Thr<br>1  | Arg       | Val       | Pro       | Leu<br>5 | Tyr       | Val       | Val       | Arg       | Gly<br>10 | Arg       | Val       | Glu       | Asp       | Pro<br>15 | Gly       |
| Ile       | Ser       | Gln       | Ala<br>20 | Leu      | Gln       | Lys       | Trp       | Arg<br>25 | His       | Ile       | Asn       | Thr       | Asn<br>30 | Leu       | Lys       |
| Asn       | Ser       | His<br>35 | Phe       | Leu      | Pro       | Ala       | Gly<br>40 | Ile       | Asn       | Trp       | Pro       | His<br>45 | Ser       | Phe       | Ser       |
| Tyr       | Gly<br>50 | Gln       | Arg       | Gly      | Gln       | Arg<br>55 | Gly       | Lys       | Val       | Leu       | Ser<br>60 | Gln       | Ile       | Trp       | Leu       |
| Met<br>65 | Ala       | Gly       | Ser       | Gln      | Glu<br>70 | Val       | Leu       | Ala       | Pro       | Ser<br>75 | Ser       | Ala       | Leu       | His       | Phe<br>80 |

002221 56662960

Asp Asp Arg Pro Ser Ser  
85

<210> 262  
<211> 73  
<212> PRT  
<213> homo sapiens

<400> 262

|           |           |           |           |          |           |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Gly<br>1  | Ser       | Gly       | Ser       | Pro<br>5 | Ala       | Pro       | Arg       | Lys       | Leu<br>10 | His | Asp       | Phe       | Ala       | Leu<br>15 | Cys |
| Ser       | Ala       | Pro       | Leu<br>20 | Cys      | Pro       | Leu       | Phe       | Pro<br>25 | Arg       | Glu | Thr       | Ser       | Arg<br>30 | Ser       | His |
| Ile       | Phe       | Leu<br>35 | Thr       | Asp      | Phe       | Glu       | Ala<br>40 | Val       | Cys       | Leu | His       | Ser<br>45 | Asp       | Trp       | Glu |
| His       | Trp<br>50 | Asp       | His       | Phe      | His       | His<br>55 | Ala       | Asp       | Ser       | Gly | Gly<br>60 | Asn       | Gly       | Cys       | Ile |
| Pro<br>65 | Phe       | His       | Asp       | Pro      | Thr<br>70 | Cys       | Val       | Tyr       |           |     |           |           |           |           |     |

<210> 263  
<211> 106  
<212> PRT  
<213> homo sapiens

<400> 263

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Phe<br>1  | Val       | Ala       | Met        | Cys<br>5  | Ser       | Lys       | Gln       | Ala        | Ser<br>10 | Leu       | Asn       | His       | Gly       | Leu<br>15 | Leu       |
| Gly       | Leu       | Thr       | Leu<br>20  | Val       | Phe       | Leu       | Gly       | Pro<br>25  | Leu       | Asn       | Arg       | His       | Arg<br>30 | Ser       | Gly       |
| His       | Gly       | Lys<br>35 | Gly        | Tyr       | Ile       | His       | Tyr<br>40 | His        | His       | Cys       | Arg       | His<br>45 | Asp       | Glu       | Asn       |
| Asp       | Pro<br>50 | Ser       | Val        | Pro       | Asn       | Gln<br>55 | Asn       | Ala        | Asn       | Arg       | Gln<br>60 | Leu       | Gln       | Asn       | Gln       |
| Ser<br>65 | Arg       | Lys       | Cys        | Gly       | Ile<br>70 | Trp       | Lys       | Ser        | Leu       | Leu<br>75 | Glu       | Arg       | Gly       | Gly       | Arg<br>80 |
| Gly       | Glu       | Leu       | Ser        | Arg<br>85 | Gly       | Arg       | Asn       | Arg        | Ala<br>90 | Val       | Tyr       | Ala       | Glu       | Leu<br>95 | Gly       |
| Thr       | Pro       | Ser       | Leu<br>100 | Arg       | Ala       | Arg       | Gly       | Gly<br>105 | Arg       |           |           |           |           |           |           |

<210> 264  
<211> 66  
<212> PRT  
<213> homo sapiens

<400> 264

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Val<br>1 | Leu | Arg | Trp | Tyr<br>5 | Ser | Ser | Asp | Pro | Ser<br>10 | Ile | Asp | Thr | Gly | Arg<br>15 | Val |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|

00673395-122700

|           |           |           |           |     |     |           |           |           |     |     |           |           |           |     |     |
|-----------|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|-----|
| Met       | Glu       | Arg       | Asp<br>20 | Thr | Ser | Ile       | Thr       | Thr<br>25 | Thr | Val | Gly       | Met       | Met<br>30 | Lys | Met |
| Ile       | Pro       | Val<br>35 | Phe       | Pro | Ile | Arg       | Met<br>40 | Gln       | Thr | Asp | Ser       | Phe<br>45 | Lys       | Ile | Ser |
| Gln       | Glu<br>50 | Asn       | Val       | Gly | Ser | Gly<br>55 | Ser       | Leu       | Ser | Trp | Lys<br>60 | Glu       | Gly       | Ala | Glu |
| Gly<br>65 | Ser       |           |           |     |     |           |           |           |     |     |           |           |           |     |     |

<210> 265  
 <211> 108  
 <212> PRT  
 <213> homo sapiens

<400> 265

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Gly<br>1  | Cys       | Ala       | Cys        | Phe<br>5  | Arg       | Pro       | Pro       | Ser        | Pro<br>10 | Ala       | Gly       | Gly       | Ala       | Arg<br>15 | Thr       |
| Ser       | Ala       | Gly       | Arg<br>20  | Ser       | Pro       | Ser       | Ser       | Ala<br>25  | Asp       | Val       | Gly       | Ser       | Arg<br>30 | Thr       | Gln       |
| Ser       | Arg       | Ser<br>35 | Arg        | Arg       | Arg       | Ala       | Ala<br>40 | His        | Ser       | Arg       | Cys       | Cys<br>45 | Val       | Ala       | Phe       |
| Pro       | Ser<br>50 | Ser       | Phe        | Thr       | Pro       | Arg<br>55 | Ser       | Arg        | Arg       | Arg       | Pro<br>60 | Lys       | Arg       | Arg       | Arg       |
| Arg<br>65 | Arg       | Arg       | Glu        | Asn       | Asp<br>70 | Pro       | Ala       | Ala        | Ser       | Ser<br>75 | Leu       | Pro       | Pro       | Ala       | His<br>80 |
| Leu       | Pro       | Cys       | Ser        | Val<br>85 | Ser       | Gln       | Ser       | Ala        | Ala<br>90 | Gly       | Ala       | Arg       | Leu       | Val<br>95 | Leu       |
| Arg       | Pro       | Arg       | Ala<br>100 | Cys       | Gly       | Ala       | Gln       | Ala<br>105 | Gln       | Arg       | Pro       |           |           |           |           |

<210> 266  
 <211> 109  
 <212> PRT  
 <213> homo sapiens

<400> 266

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Gly<br>1  | Ala       | Pro       | Ala       | Phe<br>5 | Ala       | Leu       | Leu       | Leu       | Gln<br>10 | Arg       | Glu       | Gly       | Arg       | Gly<br>15 | Leu       |
| Pro       | Arg       | Gly       | Gly<br>20 | Val      | Arg       | Leu       | Val       | Leu<br>25 | Thr       | Leu       | Ala       | Ala       | Glu<br>30 | Pro       | Lys       |
| Val       | Asp       | Arg<br>35 | Gly       | Gly      | Gly       | Leu       | His<br>40 | Ile       | Pro       | Val       | Val       | Ala<br>45 | Leu       | Arg       | Phe       |
| Leu       | Pro<br>50 | Leu       | Ser       | Leu      | Arg       | Ala<br>55 | His       | Gly       | Gly       | Gly       | Gln<br>60 | Ser       | Gly       | Gly       | Asp       |
| Gly<br>65 | Gly       | Ala       | Arg       | Thr      | Thr<br>70 | Arg       | Arg       | Pro       | Val       | Leu<br>75 | Phe       | Leu       | Leu       | Arg       | Thr<br>80 |

00673395-122700

|     |     |     |            |           |     |     |     |            |           |     |     |     |     |           |     |
|-----|-----|-----|------------|-----------|-----|-----|-----|------------|-----------|-----|-----|-----|-----|-----------|-----|
| Cys | Pro | Ala | Arg        | Ser<br>85 | Val | Ser | Arg | Arg        | Pro<br>90 | Ala | Pro | Gly | Leu | Cys<br>95 | Ser |
| Asp | Leu | Ala | Leu<br>100 | Ala       | Ala | Pro | Arg | Pro<br>105 | Ser       | Gly | Arg | Ser |     |           |     |

<210> 267  
 <211> 157  
 <212> PRT  
 <213> homo sapiens

<400> 267

|            |            |            |            |           |            |            |            |            |           |            |            |            |            |           |           |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|-----------|
| Ile<br>1   | Glu        | Ala        | Ala        | Gly<br>5  | Cys        | Thr        | Phe        | Pro        | Leu<br>10 | Leu        | Arg        | Cys        | Val        | Ser<br>15 | Phe       |
| Leu        | Phe        | His        | Ser<br>20  | Ala       | Leu        | Thr        | Ala        | Ala<br>25  | Ala       | Lys        | Ala        | Ala        | Ala<br>30  | Thr       | Ala       |
| Ala        | Arg        | Glu<br>35  | Arg        | Pro       | Gly        | Gly        | Gln<br>40  | Phe        | Ser       | Ser        | Ser        | Cys<br>45  | Ala        | Pro       | Ala       |
| Leu        | Leu<br>50  | Gly        | Gln        | Ser       | Val        | Gly<br>55  | Gly        | Arg        | Arg       | Pro        | Ala<br>60  | Cys        | Ala        | Gln       | Thr       |
| Ser<br>65  | Arg        | Leu        | Arg        | Arg       | Pro<br>70  | Gly        | Pro        | Ala        | Ala       | Val<br>75  | Ala        | Ser        | Val        | Trp       | Pro<br>80 |
| Glu        | Asn        | Leu        | Gly        | Ala<br>85 | Pro        | Ala        | Ala        | Arg        | Ala<br>90 | Pro        | Arg        | Ala        | Glu        | Pro<br>95 | Arg       |
| Ser        | Gly        | Ser        | Arg<br>100 | Gly       | Gly        | Arg        | Arg        | Val<br>105 | Ser       | Glu        | Ser        | Glu        | Gly<br>110 | Trp       | Pro       |
| Gly        | Gln        | Val<br>115 | Val        | Ala       | Pro        | Arg        | Arg<br>120 | Trp        | Ser       | Pro        | Ser        | Lys<br>125 | Gly        | Ser       | Val       |
| Trp        | Pro<br>130 | Thr        | Arg        | Ser       | Thr        | Ala<br>135 | Arg        | Thr        | Ser       | Pro        | Ser<br>140 | Ala        | Ala        | Thr       | Ser       |
| Pro<br>145 | Arg        | Pro        | Arg        | Glu       | Met<br>150 | Pro        | Pro        | Lys        | Arg       | Arg<br>155 | Arg        | Leu        |            |           |           |

<210> 268  
 <211> 156  
 <212> PRT  
 <213> homo sapiens

<400> 268

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Ser<br>1 | Ser       | Ala       | Gln       | Gly<br>5 | Glu | Glu       | Pro       | Gly       | Pro<br>10 | Gly | Arg       | Arg       | Leu       | Leu<br>15 | Arg |
| Ala      | Pro       | Thr       | Glu<br>20 | Ser      | Arg | Ser       | Glu       | Gly<br>25 | Lys       | Ser | Met       | Phe       | Ala<br>30 | Gly       | Val |
| Pro      | Thr       | Met<br>35 | Arg       | Glu      | Ser | Ser       | Pro<br>40 | Lys       | Gln       | Tyr | Met       | Gln<br>45 | Leu       | Gly       | Gly |
| Arg      | Val<br>50 | Leu       | Leu       | Val      | Leu | Met<br>55 | Phe       | Met       | Thr       | Leu | Leu<br>60 | His       | Phe       | Asp       | Ala |
| Ser      | Phe       | Phe       | Ser       | Ile      | Val | Gln       | Asn       | Ile       | Val       | Gly | Thr       | Ala       | Leu       | Met       | Ile |

002227-96673395-122700

| 65         |            |            |            |           | 70         |            |            |            |           | 75         |            |            |            |           | 80  |  |  |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|-----|--|--|
| Leu        | Val        | Ala        | Ile        | Gly<br>85 | Phe        | Lys        | Thr        | Lys        | Leu<br>90 | Ala        | Ala        | Leu        | Thr        | Leu<br>95 | Val |  |  |
| Val        | Trp        | Leu        | Phe<br>100 | Ala       | Ile        | Asn        | Val        | Tyr<br>105 | Phe       | Asn        | Ala        | Phe        | Trp<br>110 | Thr       | Ile |  |  |
| Pro        | Val        | Tyr<br>115 | Lys        | Pro       | Met        | His        | Asp<br>120 | Phe        | Leu       | Lys        | Tyr        | Asp<br>125 | Phe        | Phe       | Gln |  |  |
| Thr        | Met<br>130 | Ser        | Val        | Ile       | Gly        | Gly<br>135 | Leu        | Leu        | Leu       | Val        | Val<br>140 | Ala        | Leu        | Gly       | Pro |  |  |
| Gly<br>145 | Gly        | Val        | Ser        | Met       | Asp<br>150 | Glu        | Lys        | Lys        | Lys       | Glu<br>155 | Trp        |            |            |           |     |  |  |

<210> 269  
 <211> 112  
 <212> PRT  
 <213> homo sapiens

<400> 269

|           |           |           |            |           |           |           |           |            |           |           |           |           |            |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Leu<br>1  | Gly       | Ala       | Cys        | Ser<br>5  | Trp       | Trp       | Trp       | Pro        | Trp<br>10 | Ala       | Leu       | Gly       | Val        | Ser<br>15 | Pro       |
| Trp       | Met       | Arg       | Arg<br>20  | Arg       | Arg       | Ser       | Gly       | Asn<br>25  | Ser       | His       | Arg       | Ser       | Leu<br>30  | Pro       | Ala       |
| Trp       | Leu       | Arg<br>35 | Pro        | Val       | Ala       | Val       | Lys<br>40 | Asp        | Trp       | Phe       | Gly       | Val<br>45 | Asp        | Ser       | Thr       |
| Lys       | Leu<br>50 | Pro       | Ala        | Phe       | Met       | Tyr<br>55 | Pro       | Leu        | Pro       | Phe       | Pro<br>60 | Ser       | Leu        | Gly       | Lys       |
| Gly<br>65 | Thr       | Asp       | Val        | Leu       | Arg<br>70 | Thr       | Leu       | Phe        | Ala       | Glu<br>75 | Thr       | Pro       | Glu        | Asn       | Arg<br>80 |
| Trp       | Leu       | Ser       | Leu        | Leu<br>85 | Trp       | Ser       | His       | Ser        | Leu<br>90 | Ala       | Ser       | Asp       | Pro        | Ser<br>95 | Val       |
| Gln       | Ala       | Ser       | Leu<br>100 | Ala       | Ala       | Gly       | Ser       | Leu<br>105 | Pro       | His       | Ala       | Glu       | Ala<br>110 | Leu       | Glu       |

<210> 270  
 <211> 130  
 <212> PRT  
 <213> homo sapiens

<400> 270

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Ser<br>1 | Gln       | Arg       | Val       | Cys<br>5 | Lys | Tyr       | Ser       | Pro       | Gly<br>10 | Ser | Leu       | Leu       | Pro       | Tyr<br>15 | Pro |
| Arg      | Ile       | Leu       | Val<br>20 | Arg      | Ser | Ser       | Asn       | Gly<br>25 | Phe       | Arg | Thr       | Trp       | Val<br>30 | Leu       | Phe |
| Ser      | Cys       | Asp<br>35 | His       | Ser      | Ser | Ala       | His<br>40 | Cys       | Met       | Lys | Thr       | Gly<br>45 | Leu       | Ser       | Gln |
| Cys      | Phe<br>50 | Asn       | Leu       | Thr      | Arg | Ala<br>55 | Val       | Ser       | Trp       | Ser | Thr<br>60 | Pro       | Arg       | Ser       | Leu |

00673395-122700

|           |            |            |            |           |           |     |            |            |           |           |     |            |            |           |           |
|-----------|------------|------------|------------|-----------|-----------|-----|------------|------------|-----------|-----------|-----|------------|------------|-----------|-----------|
| Leu<br>65 | Val        | Pro        | Tyr        | Asp       | Ser<br>70 | Pro | His        | Gln        | Met       | Thr<br>75 | Leu | Ala        | Lys        | Ser       | Arg<br>80 |
| Phe       | Leu        | Cys        | Gly        | Gln<br>85 | Gly       | Trp | Leu        | Ala        | Asp<br>90 | Trp       | Trp | Lys        | Val        | Gly<br>95 | Trp       |
| Thr       | Lys        | Gly        | Gly<br>100 | His       | Val       | Ser | Ser        | Gln<br>105 | His       | Gln       | Phe | Cys        | Thr<br>110 | Ser       | Ser       |
| Ala       | Ser        | Val<br>115 | Leu        | Val       | Gly       | Val | Pro<br>120 | Val        | Ser       | Pro       | Gly | Pro<br>125 | Gly        | Trp       | Ala       |
| Arg       | Ala<br>130 |            |            |           |           |     |            |            |           |           |     |            |            |           |           |

<210> 271  
 <211> 267  
 <212> PRT  
 <213> homo sapiens

<400> 271

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gly<br>1   | Thr        | Ser        | Gly        | Thr<br>5   | Ser        | His        | Leu        | His        | Pro<br>10  | Arg        | Ser        | Ile        | Cys        | Met<br>15  | Ile        |
| Gln        | Lys        | Tyr        | Asn<br>20  | His        | Asp        | Gly        | Glu        | Ala<br>25  | Gly        | Arg        | Leu        | Glu        | Ala<br>30  | Phe        | Ser        |
| Gln        | Gly        | Glu<br>35  | Ser        | Val        | Leu        | Lys        | Glu<br>40  | Pro        | Lys        | Tyr        | Gln        | Glu<br>45  | Glu        | Leu        | Glu        |
| Asp        | Arg<br>50  | Leu        | His        | Phe        | Tyr        | Val<br>55  | Glu        | Glu        | Cys        | Asp        | Tyr<br>60  | Leu        | Gln        | Gly        | Phe        |
| Gln<br>65  | Ile        | Leu        | Cys        | Asp        | Leu<br>70  | His        | Asp        | Gly        | Phe        | Ser<br>75  | Gly        | Val        | Gly        | Ala        | Lys<br>80  |
| Ala        | Ala        | Glu        | Leu        | Leu<br>85  | Gln        | Asp        | Glu        | Tyr        | Ser<br>90  | Gly        | Arg        | Gly        | Ile        | Ile<br>95  | Thr        |
| Trp        | Gly        | Leu        | Leu<br>100 | Pro        | Gly        | Pro        | Tyr        | His<br>105 | Arg        | Gly        | Glu        | Ala        | Gln<br>110 | Arg        | Asn        |
| Ile        | Tyr        | Arg<br>115 | Leu        | Leu        | Asn        | Thr        | Ala<br>120 | Phe        | Gly        | Leu        | Val        | His<br>125 | Leu        | Thr        | Ala        |
| His        | Ser<br>130 | Ser        | Leu        | Val        | Cys        | Pro<br>135 | Leu        | Ser        | Leu        | Gly        | Gly<br>140 | Ser        | Leu        | Gly        | Leu        |
| Arg<br>145 | Pro        | Glu        | Pro        | Pro        | Val<br>150 | Ser        | Phe        | Pro        | Tyr        | Leu<br>155 | His        | Tyr        | Asp        | Ala        | Thr<br>160 |
| Leu        | Pro        | Phe        | His        | Cys<br>165 | Ser        | Ala        | Ile        | Leu        | Ala<br>170 | Thr        | Ala        | Leu        | Asp        | Thr<br>175 | Val        |
| Thr        | Val        | Pro        | Tyr<br>180 | Arg        | Leu        | Cys        | Ser        | Ser<br>185 | Pro        | Val        | Ser        | Met        | Val<br>190 | His        | Leu        |
| Ala        | Asp        | Met<br>195 | Leu        | Ser        | Phe        | Cys        | Gly<br>200 | Lys        | Lys        | Val        | Val        | Thr<br>205 | Ala        | Gly        | Ala        |
| Ile        | Ile        | Pro        | Phe        | Pro        | Leu        | Ala        | Pro        | Gly        | Gln        | Ser        | Leu        | Pro        | Asp        | Ser        | Leu        |

00673395 "122700





00222T" 56557960

|     |            |            |            |           |     |     |            |            |           |     |     |            |            |           |     |
|-----|------------|------------|------------|-----------|-----|-----|------------|------------|-----------|-----|-----|------------|------------|-----------|-----|
| Ser | Gln        | Asp        | Gly        | Thr<br>85 | Ala | Val | Glu        | Gly        | Gln<br>90 | Ser | Gly | Ile        | Ile        | Met<br>95 | Gln |
| Val | Arg        | Glu        | Ala<br>100 | Asp       | Arg | Trp | Leu        | Gly<br>105 | Ser       | Gln | Ala | Gln        | Ala<br>110 | Pro       | Thr |
| Gln | Gly        | Gln<br>115 | Gly        | Ala       | Asp | Lys | Arg<br>120 | Ala        | Val       | Ser | Ser | Gln<br>125 | Val        | His       | Glu |
| Thr | Lys<br>130 | Ser        | Cys        | Val       |     |     |            |            |           |     |     |            |            |           |     |

<210> 274  
 <211> 124  
 <212> PRT  
 <213> homo sapiens

<400> 274

|           |           |            |            |           |           |           |            |            |           |           |           |           |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Pro<br>1  | Gln       | Ala        | Trp        | Arg<br>5  | Arg       | Leu       | Cys        | Arg        | Cys<br>10 | Cys       | Ser       | Ala       | Arg        | Pro<br>15 | Val       |
| Ala       | Pro       | Gly        | Ala<br>20  | Arg       | Arg       | Leu       | Val        | Pro<br>25  | Cys       | Arg       | Thr       | Pro       | Thr<br>30  | Arg       | Gln       |
| Pro       | Ala       | Gly<br>35  | Gly        | Thr       | Cys       | His       | His<br>40  | Pro        | Ala       | Ala       | Phe       | Arg<br>45 | Gly        | Arg       | Ser       |
| Arg       | His<br>50 | Ile        | Pro        | Val       | Pro       | His<br>55 | Ala        | Leu        | Gly       | Phe       | Gly<br>60 | Ala       | Ser        | Ala       | Gly       |
| Arg<br>65 | Ser       | Val        | Pro        | Leu       | Gln<br>70 | Ala       | Leu        | Ser        | Gln       | Ser<br>75 | Pro       | Gly       | Ala        | Ala       | Asp<br>80 |
| Leu       | Gln       | Val        | Phe        | Ser<br>85 | Thr       | Gly       | Ala        | Ala        | Pro<br>90 | Val       | Ile       | His       | Thr        | Arg<br>95 | Leu       |
| Leu       | Glu       | Asp        | Pro<br>100 | Ile       | Leu       | Gly       | Ala        | Thr<br>105 | Leu       | Pro       | Ala       | Gly       | Pro<br>110 | Ile       | Arg       |
| Cys       | Arg       | Ala<br>115 | Val        | Gly       | Leu       | Val       | Pro<br>120 | Arg        | His       | Cys       | His       |           |            |           |           |

<210> 275  
 <211> 426  
 <212> PRT  
 <213> homo sapiens

<400> 275

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Gly<br>1 | Ser       | Ser       | Arg       | Arg<br>5 | His | Gly       | Gly       | Gly       | Tyr<br>10 | Ala | Ala       | Val       | Ala       | Leu<br>15 | Leu |
| Val      | Leu       | Leu       | Leu<br>20 | Leu      | Gly | Pro       | Gly       | Gly<br>25 | Trp       | Cys | Leu       | Ala       | Glu<br>30 | Pro       | Pro |
| Arg      | Asp       | Ser<br>35 | Leu       | Arg      | Glu | Glu       | Leu<br>40 | Val       | Ile       | Thr | Pro       | Leu<br>45 | Pro       | Ser       | Gly |
| Asp      | Val<br>50 | Ala       | Ala       | Thr      | Phe | Gln<br>55 | Phe       | Arg       | Thr       | Arg | Trp<br>60 | Asp       | Ser       | Glu       | Leu |

004227 562960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gln<br>65  | Arg        | Glu        | Gly        | Val        | Ser<br>70  | His        | Tyr        | Arg        | Leu        | Phe<br>75  | Pro        | Lys        | Ala        | Leu        | Gly<br>80  |
| Gln        | Leu        | Ile        | Ser        | Lys<br>85  | Tyr        | Ser        | Leu        | Arg        | Glu<br>90  | Leu        | His        | Leu        | Ser        | Phe<br>95  | Thr        |
| Gln        | Gly        | Phe        | Trp<br>100 | Arg        | Thr        | Arg        | Tyr        | Trp<br>105 | Gly        | Pro        | Pro        | Phe        | Leu<br>110 | Gln        | Ala        |
| Pro        | Ser        | Gly<br>115 | Ala        | Glu        | Leu        | Trp        | Val<br>120 | Trp        | Phe        | Gln        | Asp        | Thr<br>125 | Val        | Thr        | Asp        |
| Val        | Asp<br>130 | Lys        | Ser        | Trp        | Lys        | Glu<br>135 | Leu        | Ser        | Asn        | Val        | Leu<br>140 | Ser        | Gly        | Ile        | Phe        |
| Cys<br>145 | Ala        | Ser        | Leu        | Asn        | Phe<br>150 | Ile        | Asp        | Ser        | Thr        | Asn<br>155 | Thr        | Val        | Thr        | Pro        | Thr<br>160 |
| Ala        | Ser        | Phe        | Lys        | Pro<br>165 | Leu        | Gly        | Leu        | Ala        | Asn<br>170 | Asp        | Thr        | Asp        | His        | Tyr<br>175 | Phe        |
| Leu        | Arg        | Tyr        | Ala<br>180 | Val        | Leu        | Pro        | Arg        | Glu<br>185 | Val        | Val        | Cys        | Thr        | Glu<br>190 | Asn        | Leu        |
| Thr        | Pro        | Trp<br>195 | Lys        | Lys        | Leu        | Leu        | Pro<br>200 | Cys        | Ser        | Ser        | Lys        | Ala<br>205 | Gly        | Leu        | Ser        |
| Val        | Leu<br>210 | Leu        | Lys        | Ala        | Asp        | Arg<br>215 | Leu        | Phe        | His        | Thr        | Ser<br>220 | Tyr        | His        | Ser        | Gln        |
| Ala<br>225 | Val        | His        | Ile        | Arg        | Pro<br>230 | Val        | Cys        | Arg        | Asn        | Ala<br>235 | Arg        | Cys        | Thr        | Ser        | Ile<br>240 |
| Ser        | Trp        | Glu        | Leu        | Arg<br>245 | Gln        | Thr        | Leu        | Ser        | Val<br>250 | Val        | Phe        | Asp        | Ala        | Phe<br>255 | Ile        |
| Thr        | Gly        | Gln        | Gly<br>260 | Lys        | Lys        | Asp        | Trp        | Ser<br>265 | Leu        | Phe        | Arg        | Met        | Phe<br>270 | Ser        | Arg        |
| Thr        | Leu        | Thr<br>275 | Glu        | Pro        | Cys        | Pro        | Leu<br>280 | Ala        | Ser        | Glu        | Ser        | Arg<br>285 | Val        | Tyr        | Val        |
| Asp        | Ile<br>290 | Thr        | Thr        | Tyr        | Asn        | Gln<br>295 | Asp        | Asn        | Glu        | Thr        | Leu<br>300 | Glu        | Val        | His        | Pro        |
| Pro<br>305 | Pro        | Thr        | Thr        | Thr        | Tyr<br>310 | Gln        | Asp        | Val        | Ile        | Leu<br>315 | Gly        | Thr        | Arg        | Lys        | Thr<br>320 |
| Tyr        | Ala        | Ile        | Tyr        | Asp<br>325 | Leu        | Leu        | Asp        | Thr        | Ala<br>330 | Met        | Ile        | Asn        | Asn        | Ser<br>335 | Arg        |
| Asn        | Leu        | Asn        | Ile<br>340 | Gln        | Leu        | Lys        | Trp        | Lys<br>345 | Arg        | Pro        | Pro        | Glu        | Asn<br>350 | Glu        | Ala        |
| Pro        | Pro        | Val<br>355 | Pro        | Phe        | Leu        | His        | Ala<br>360 | Gln        | Arg        | Tyr        | Val        | Ser<br>365 | Gly        | Tyr        | Gly        |
| Leu        | Gln<br>370 | Lys        | Gly        | Glu        | Leu        | Ser<br>375 | Thr        | Leu        | Leu        | Tyr        | Asn<br>380 | Thr        | His        | Pro        | Tyr        |
| Arg<br>385 | Ala        | Phe        | Pro        | Val        | Leu<br>390 | Leu        | Leu        | Asp        | Thr        | Val<br>395 | Pro        | Trp        | Tyr        | Leu        | Arg<br>400 |

|     |     |     |            |            |     |     |     |            |            |     |     |     |     |            |     |
|-----|-----|-----|------------|------------|-----|-----|-----|------------|------------|-----|-----|-----|-----|------------|-----|
| Leu | Leu | His | Pro        | Leu<br>405 | Pro | Ala | Cys | Pro        | Gly<br>410 | Pro | Ala | Ala | Thr | Pro<br>415 | Pro |
| Pro | Gly | Asp | Ala<br>420 | Asp        | Ser | Ala | Ala | Gly<br>425 | Gln        |     |     |     |     |            |     |

<210> 276  
 <211> 128  
 <212> PRT  
 <213> homo sapiens

<400> 276

|           |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Ser<br>1  | Pro       | Ser        | Ile        | Leu<br>5  | Tyr       | Gly       | Ser        | Cys        | Thr<br>10 | Cys       | His       | Ser        | His        | Lys<br>15 | Ala       |
| Phe       | Gly       | Gly        | Pro<br>20  | Asp       | Thr       | Gly       | Gly        | His<br>25  | Pro       | Ser       | Cys       | Arg        | Pro<br>30  | His       | Gln       |
| Val       | Gln       | Ser<br>35  | Cys        | Gly       | Ser       | Gly       | Ser<br>40  | Lys        | Thr       | Leu       | Ser       | Leu<br>45  | Met        | Trp       | Ile       |
| Asn       | Leu<br>50 | Gly        | Arg        | Ser       | Ser       | Val<br>55 | Met        | Ser        | Ser       | Gln       | Gly<br>60 | Ser        | Ser        | Ala       | Pro       |
| Leu<br>65 | Ser       | Thr        | Ser        | Ser       | Thr<br>70 | Pro       | Pro        | Thr        | Gln       | Ser<br>75 | Leu       | Pro        | Leu        | Pro       | Pro<br>80 |
| Ser       | Asn       | Pro        | Trp        | Val<br>85 | Trp       | Pro       | Met        | Thr        | Leu<br>90 | Thr       | Thr       | Thr        | Phe        | Cys<br>95 | Ala       |
| Met       | Leu       | Cys        | Cys<br>100 | Arg       | Gly       | Arg       | Trp        | Ser<br>105 | Ala       | Pro       | Lys       | Thr        | Ser<br>110 | Pro       | Pro       |
| Gly       | Arg       | Ser<br>115 | Ser        | Cys       | Pro       | Val       | Val<br>120 | Pro        | Arg       | Gln       | Ala       | Ser<br>125 | Leu        | Cys       | Cys       |

<210> 277  
 <211> 481  
 <212> PRT  
 <213> homo sapiens

<400> 277

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ala<br>1  | Gln       | Asp       | Thr       | Gly<br>5  | Gly       | Pro       | Gly       | Arg       | Gln<br>10 | Ser       | Gly       | His       | Gly       | Gly<br>15 | Asp       |
| Leu       | Gln       | Ile       | Pro<br>20 | Ile       | Ser       | Leu       | Phe       | Leu<br>25 | Arg       | Arg       | Leu       | Asn       | Thr<br>30 | Gln       | His       |
| Trp       | Arg       | Pro<br>35 | Gly       | Ser       | Arg       | Lys       | Val<br>40 | Met       | Ala       | Val       | Val       | Pro<br>45 | Ala       | Ser       | Leu       |
| Ser       | Gly<br>50 | Gln       | Asp       | Val       | Gly       | Ser<br>55 | Phe       | Ala       | Tyr       | Leu       | Thr<br>60 | Ile       | Lys       | Asp       | Arg       |
| Ile<br>65 | Pro       | Gln       | Ile       | Leu       | Thr<br>70 | Lys       | Val       | Ile       | Asp       | Thr<br>75 | Leu       | His       | Arg       | His       | Lys<br>80 |
| Ser       | Glu       | Phe       | Phe       | Glu<br>85 | Lys       | His       | Gly       | Glu       | Glu<br>90 | Gly       | Val       | Glu       | Ala       | Glu<br>95 | Lys       |
| Lys       | Ala       | Ile       | Ser       | Leu       | Leu       | Ser       | Lys       | Leu       | Arg       | Asn       | Glu       | Leu       | Gln       | Thr       | Asp       |

002227 5622960

00673395 "122700

| 100        |            |            |            |            |            |            | 105        |            |            |            | 110        |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Lys        | Pro        | Phe<br>115 | Ile        | Pro        | Leu        | Val        | Glu<br>120 | Lys        | Phe        | Val        | Asp        | Thr<br>125 | Asp        | Ile        | Trp        |
| Asn        | Gln<br>130 | Tyr        | Leu        | Glu        | Tyr        | Gln<br>135 | Gln        | Ser        | Leu        | Leu        | Asn<br>140 | Glu        | Ser        | Asp        | Gly        |
| Lys<br>145 | Ser        | Arg        | Trp        | Phe        | Tyr<br>150 | Ser        | Pro        | Trp        | Leu        | Leu<br>155 | Val        | Glu        | Cys        | Tyr        | Met<br>160 |
| Tyr        | Arg        | Arg        | Ile        | His<br>165 | Glu        | Ala        | Ile        | Ile        | Gln<br>170 | Ser        | Pro        | Pro        | Ile        | Asp<br>175 | Tyr        |
| Phe        | Asp        | Val        | Phe<br>180 | Lys        | Glu        | Ser        | Lys        | Glu<br>185 | Gln        | Asn        | Phe        | Tyr        | Gly<br>190 | Ser        | Gln        |
| Glu        | Ser        | Ile<br>195 | Ile        | Ala        | Leu        | Cys        | Thr<br>200 | His        | Leu        | Gln        | Gln        | Leu<br>205 | Ile        | Arg        | Thr        |
| Ile        | Glu<br>210 | Asp        | Leu        | Asp        | Glu        | Asn<br>215 | Gln        | Leu        | Lys        | Asp        | Glu<br>220 | Phe        | Phe        | Lys        | Leu        |
| Leu<br>225 | Gln        | Ile        | Ser        | Leu        | Trp<br>230 | Gly        | Asn        | Lys        | Cys        | Asp<br>235 | Leu        | Ser        | Leu        | Ser        | Gly<br>240 |
| Gly        | Glu        | Ser        | Ser        | Ser<br>245 | Gln        | Asn        | Thr        | Asn        | Val<br>250 | Leu        | Asn        | Ser        | Leu        | Glu<br>255 | Asp        |
| Leu        | Lys        | Pro        | Phe<br>260 | Ile        | Leu        | Leu        | Asn        | Asp<br>265 | Met        | Glu        | His        | Leu        | Trp<br>270 | Ser        | Leu        |
| Leu        | Ser        | Asn<br>275 | Cys        | Lys        | Lys        | Thr        | Arg<br>280 | Glu        | Lys        | Ala        | Ser        | Ala<br>285 | Thr        | Arg        | Val        |
| Tyr        | Ile<br>290 | Val        | Leu        | Asp        | Asn        | Ser<br>295 | Gly        | Phe        | Glu        | Leu        | Val<br>300 | Thr        | Asp        | Leu        | Ile        |
| Leu<br>305 | Ala        | Asp        | Phe        | Leu        | Leu<br>310 | Ser        | Ser        | Glu        | Leu        | Ala<br>315 | Thr        | Glu        | Val        | His        | Phe<br>320 |
| Tyr        | Gly        | Lys        | Thr        | Ile<br>325 | Pro        | Trp        | Phe        | Val        | Ser<br>330 | Asp        | Thr        | Thr        | Ile        | His<br>335 | Asp        |
| Phe        | Asn        | Trp        | Leu<br>340 | Ile        | Glu        | Gln        | Val        | Lys<br>345 | His        | Ser        | Asn        | His        | Lys<br>350 | Trp        | Met        |
| Ser        | Lys        | Cys<br>355 | Gly        | Ala        | Asp        | Trp        | Glu<br>360 | Glu        | Tyr        | Ile        | Lys        | Met<br>365 | Gly        | Lys        | Trp        |
| Val        | Tyr<br>370 | His        | Asn        | His        | Ile        | Phe<br>375 | Trp        | Thr        | Leu        | Pro        | His<br>380 | Glu        | Tyr        | Cys        | Ala        |
| Met<br>385 | Pro        | Gln        | Val        | Ala        | Pro<br>390 | Asp        | Leu        | Tyr        | Ala        | Glu<br>395 | Leu        | Gln        | Lys        | Ala        | His<br>400 |
| Leu        | Ile        | Leu        | Phe        | Lys<br>405 | Gly        | Asp        | Leu        | Asn        | Tyr<br>410 | Arg        | Lys        | Leu        | Thr        | Gly<br>415 | Asp        |
| Arg        | Lys        | Trp        | Glu<br>420 | Phe        | Ser        | Val        | Pro        | Phe<br>425 | His        | Gln        | Ala        | Leu        | Asn<br>430 | Gly        | Phe        |
| His        | Pro        | Ala        | Pro        | Leu        | Cys        | Thr        | Ile        | Arg        | Thr        | Leu        | Lys        | Ala        | Glu        | Ile        | Gln        |

[illegible]

```
<210> 278
<211> 128
<212> PRT
<213> homo sapiens
```

<400> 278

|           |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Phe<br>1  | His       | Ile        | Ser        | Val<br>5  | Ser       | Thr       | Asn        | Phe        | Ser<br>10 | Thr       | Lys       | Gly        | Ile        | Asn<br>15 | Gly       |
| Leu       | Ser       | Val        | Cys<br>20  | Asn       | Ser       | Phe       | Arg        | Asn<br>25  | Leu       | Glu       | Arg       | Arg        | Glu<br>30  | Ile       | Ala       |
| Phe       | Phe       | Ser<br>35  | Ala        | Ser       | Thr       | Pro       | Ser<br>40  | Ser        | Pro       | Cys       | Phe       | Ser<br>45  | Lys        | Asn       | Ser       |
| Leu       | Leu<br>50 | Cys        | Arg        | Cys       | Asn       | Val<br>55 | Ser        | Ile        | Thr       | Leu       | Val<br>60 | Lys        | Ile        | Cys       | Gly       |
| Ile<br>65 | Leu       | Ser        | Leu        | Ile       | Val<br>70 | Arg       | Tyr        | Ala        | Asn       | Asp<br>75 | Pro       | Thr        | Ser        | Cys       | Pro<br>80 |
| Glu       | Arg       | Asp        | Ala        | Gly<br>85 | Thr       | Thr       | Ala        | Ile        | Thr<br>90 | Phe       | Arg       | Asp        | Pro        | Gly<br>95 | Arg       |
| Gln       | Cys       | Trp        | Val<br>100 | Phe       | Asn       | Arg       | Arg        | Arg<br>105 | Asn       | Arg       | Glu       | Ile        | Gly<br>110 | Ile       | Cys       |
| Lys       | Ser       | Pro<br>115 | Pro        | Cys       | Pro       | Asp       | Cys<br>120 | Arg        | Pro       | Gly       | Pro       | Pro<br>125 | Val        | Ser       | Cys       |

```
<210> 279
<211> 83
<212> PRT
<213> homo sapiens
```

<400> 279

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Glu<br>1  | Leu       | Leu       | Asn       | Gln<br>5 | Val       | Lys       | Gly       | Asp       | His<br>10 | Arg       | Thr       | Glu       | Ile       | Phe<br>15 | His       |
| Ile       | Phe       | Gln       | Trp<br>20 | Ser      | Thr       | Ser       | Trp       | Ala<br>25 | Gln       | Arg       | Pro       | Gly       | Ala<br>30 | Val       | Pro       |
| Leu       | Ala       | Gln<br>35 | Ala       | Ala      | Asp       | Gln       | Pro<br>40 | Glu       | Phe       | Gln       | Leu       | Leu<br>45 | Met       | Phe       | Leu       |
| Trp       | Tyr<br>50 | Arg       | Val       | Val      | Gln       | Asp<br>55 | Gly       | Ser       | His       | Ser       | Glu<br>60 | Pro       | Asp       | Glu       | Met       |
| Glu<br>65 | Gln       | Lys       | Thr       | Pro      | Ile<br>70 | Phe       | Cys       | His       | Leu       | Ser<br>75 | Thr       | Ser       | Cys       | Asn       | Ser<br>80 |

[illegible]

Asn His Pro

<210> 280  
 <211> 168  
 <212> PRT  
 <213> homo sapiens

<400> 280

|            |            |            |            |            |            |            |            |            |           |            |            |            |            |           |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|--|
| Phe<br>1   | Tyr        | Asp        | Arg        | Arg<br>5   | Asp        | Cys        | Phe        | Val        | Ala<br>10 | Val        | Ser        | Phe        | Leu        | Arg<br>15 | Gly        |  |
| Leu        | Ser        | Leu        | Trp<br>20  | Leu        | His        | Phe        | Tyr        | Leu<br>25  | Trp       | Trp        | Leu        | Cys        | Tyr<br>30  | Gly       | Gly        |  |
| Ala        | Glu        | Met<br>35  | Arg        | Gln        | Lys        | Arg        | Lys<br>40  | Gly        | Asp       | Leu        | Ser        | Pro<br>45  | Ala        | Glu       | Leu        |  |
| Met        | Met<br>50  | Leu        | Thr        | Ile        | Gly        | Asp<br>55  | Val        | Ile        | Lys       | Gln        | Leu<br>60  | Ile        | Glu        | Ala       | His        |  |
| Glu<br>65  | Gln        | Gly        | Lys        | Asp        | Ile<br>70  | Asp        | Leu        | Asn        | Lys       | Val<br>75  | Lys        | Thr        | Lys        | Thr       | Ala<br>80  |  |
| Ala        | Lys        | Tyr        | Gly        | Leu<br>85  | Ser        | Ala        | Gln        | Pro        | Arg<br>90 | Leu        | Val        | Asp        | Ile        | Ile<br>95 | Ala        |  |
| Ala        | Val        | Pro        | Pro<br>100 | Gln        | Tyr        | Arg        | Lys        | Val<br>105 | Leu       | Met        | Pro        | Lys        | Leu<br>110 | Lys       | Ala        |  |
| Lys        | Pro        | Ile<br>115 | Arg        | Thr        | Ala        | Ser        | Gly<br>120 | Ile        | Ala       | Val        | Val        | Ala<br>125 | Val        | Met       | Cys        |  |
| Lys        | Pro<br>130 | His        | Arg        | Cys        | Pro        | His<br>135 | Ile        | Ser        | Phe       | Thr        | Gly<br>140 | Asn        | Ile        | Cys       | Val        |  |
| Tyr<br>145 | Cys        | Pro        | Gly        | Gly        | Pro<br>150 | Asp        | Ser        | Asp        | Phe       | Glu<br>155 | Tyr        | Ser        | Thr        | Gln       | Ser<br>160 |  |
| Tyr        | Thr        | Gly        | Tyr        | Glu<br>165 | Gln        | Pro        | Pro        |            |           |            |            |            |            |           |            |  |

<210> 281  
 <211> 70  
 <212> PRT  
 <213> homo sapiens

<400> 281

|           |           |           |           |          |           |           |           |           |           |     |           |           |           |           |     |  |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|--|
| Gly<br>1  | Gly       | Thr       | Ala       | Ala<br>5 | Met       | Ile       | Ser       | Thr       | Arg<br>10 | Arg | Gly       | Trp       | Ala       | Glu<br>15 | Arg |  |
| Pro       | Tyr       | Leu       | Ala<br>20 | Ala      | Val       | Leu       | Val       | Phe<br>25 | Thr       | Leu | Phe       | Arg       | Ser<br>30 | Met       | Ser |  |
| Phe       | Pro       | Cys<br>35 | Ser       | Trp      | Ala       | Ser       | Ile<br>40 | Ser       | Cys       | Leu | Ile       | Thr<br>45 | Ser       | Pro       | Ile |  |
| Val       | Ser<br>50 | Ile       | Ile       | Ser      | Ser       | Ala<br>55 | Gly       | Leu       | Arg       | Ser | Pro<br>60 | Phe       | Arg       | Phe       | Cys |  |
| Leu<br>65 | Ile       | Ser       | Ala       | Pro      | Pro<br>70 |           |           |           |           |     |           |           |           |           |     |  |

002221"56662950

<210> 282  
 <211> 71  
 <212> PRT  
 <213> homo sapiens

<400> 282

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Asp | Val | Phe | Pro | Leu | Leu | Val | Gly | Phe | Asn | Gln | Leu | Phe | Asn | Asn |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ile | Ser | Tyr | Ser | Gln | His | His | Gln | Leu | Ser | Arg | Ala | Glu | Ile | Ser | Phe |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Pro | Leu | Leu | Pro | His | Phe | Cys | Ala | Ala | Val | Ala | Glu | Pro | Pro | Glu | Ile |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Lys | Met | Gln | Pro | Gln | Thr | Gln | Thr | Thr | Glu | Lys | Ala | Asp | Ser | His | Lys |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Thr | Ile | Pro | Pro | Val | Val | Lys |     |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     | 70  |     |     |     |     |     |     |     |     |     |     |

<210> 283  
 <211> 114  
 <212> PRT  
 <213> homo sapiens

<400> 283

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Pro | Arg | Gln | Leu | Pro | Asn | Met | Ala | Phe | Leu | Pro | Ser | Pro | Ala | Trp |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Trp | Ile | Ser | Leu | Leu | Ala | Val | Pro | Pro | Gln | Tyr | Arg | Lys | Val | Leu | Met |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Pro | Lys | Leu | Lys | Ala | Lys | Pro | Ile | Arg | Thr | Ala | Ser | Gly | Ile | Ala | Val |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Val | Ala | Val | Met | Cys | Lys | Pro | His | Arg | Cys | Pro | His | Ile | Ser | Phe | Thr |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Gly | Asn | Ile | Cys | Val | Tyr | Cys | Pro | Gly | Trp | Asp | Leu | Ile | Leu | Ile | Leu |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Ser | Ile | Pro | Pro | Ser | Leu | Thr | Leu | Gly | Tyr | Glu | Pro | Thr | Ser | Met | Arg |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Ser | Tyr | Ser | Val | Pro | Asp | Met | Asp | Pro | Phe | Pro | Tyr | Arg | Thr | Arg | Thr |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Pro | Asp |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 284  
 <211> 127  
 <212> PRT  
 <213> homo sapiens

<400> 284

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Val | Ser | Pro | Leu | Thr | Trp | Ala | Ser | Arg | Pro | Cys | Asp | Thr | Glu | Glu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |

000222F 56EE4960



|           |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Gly       | Arg       | Gln        | Ala<br>20  | Met       | Ile       | Ser       | Thr        | Arg<br>25  | Arg       | Gly       | Trp       | Ala        | Glu<br>30  | Arg       | Pro       |
| Tyr       | Leu       | Ala<br>35  | Ala        | Val       | Leu       | Val       | Phe<br>40  | Thr        | Leu       | Phe       | Arg       | Ser<br>45  | Met        | Ser       | Phe       |
| Pro       | Cys<br>50 | Ser        | Trp        | Ala       | Ser       | Ile<br>55 | Ser        | Cys        | Leu       | Ile       | Thr<br>60 | Ser        | Pro        | Ile       | Val       |
| Ser<br>65 | Ile       | Ile        | Ser        | Ser       | Ala<br>70 | Gly       | Leu        | Arg        | Ser       | Pro<br>75 | Asp       | Tyr        | Gly        | Gly       | Phe<br>80 |
| Thr       | Thr       | Arg        | Pro        | Gly<br>85 | Ser       | Asn       | Ile        | Leu        | Gly<br>90 | Ser       | Arg       | Val        | Gly        | His<br>95 | Tyr       |
| Thr       | His       | Gln        | Thr<br>100 | Met       | Glu       | Asp       | Ser        | Pro<br>105 | Pro       | Asp       | Gln       | Glu        | Ala<br>110 | Thr       | Ala       |
| Trp       | Ala       | Pro<br>115 | Glu        | Leu       | Ala       | Thr       | Pro<br>120 | Pro        | Cys       | Thr       | Asp       | Glu<br>125 | Asp        | Arg       |           |

<210> 285  
 <211> 92  
 <212> PRT  
 <213> homo sapiens

<400> 285

|           |     |           |           |           |           |           |           |           |           |     |           |           |           |           |           |
|-----------|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----------|
| Pro<br>1  | His | Thr       | Thr       | Asn<br>5  | Pro       | Thr       | Cys       | Phe       | Lys<br>10 | Leu | Phe       | Leu       | Ile       | Arg<br>15 | Cys       |
| Pro       | Cys | Pro       | Val<br>20 | Arg       | Lys       | Arg       | Val       | His<br>25 | Ile       | Trp | His       | Gly       | Ile<br>30 | Ala       | Pro       |
| His       | Gly | Gly<br>35 | Trp       | Leu       | Ile       | Ala       | Gln<br>40 | Cys       | Lys       | Thr | Gly       | Trp<br>45 | Asn       | Thr       | Gln       |
| Asn<br>50 | Gln | Asn       | Gln       | Val       | Pro       | Pro<br>55 | Arg       | Ala       | Val       | Tyr | Thr<br>60 | Tyr       | Ile       | Ser       | Cys       |
| Lys<br>65 | Thr | Asp       | Val       | Trp       | Thr<br>70 | Ser       | Val       | Gly       | Phe<br>75 | Ala | His       | His       | Ser       | His       | Asp<br>80 |
| Ser       | Asn | Pro       | Thr       | Ser<br>85 | Ser       | Ser       | Asp       | Gly       | Phe<br>90 | Arg | Leu       |           |           |           |           |

<210> 286  
 <211> 76  
 <212> PRT  
 <213> homo sapiens

<400> 286

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Asp<br>1 | Leu | Ser       | Arg       | Pro<br>5 | Gly | Gly | Thr       | Arg       | Phe<br>10 | Val | Leu | Thr       | Ile       | Gln<br>15 | Gln |
| Thr      | Phe | Phe       | Ser<br>20 | Lys      | Val | Phe | Val       | Gln<br>25 | Asp       | Asn | Phe | Lys       | Asn<br>30 | Asn       | Ile |
| Lys      | Ile | Asn<br>35 | Asn       | Gly      | Phe | Asp | Phe<br>40 | Ser       | Leu       | Lys | Ile | Glu<br>45 | Lys       | Lys       | Gly |
| Val      | Gly | Gly       | Gly       | Val      | Asn | His | Trp       | Pro       | Phe       | Phe | Phe | Trp       | Arg       | Gly       | Pro |

00222T 56662960





<400> 294

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Ala<br>1 | Ile | Asn | Lys       | Val<br>5 | Ser | Ser | Gly | Tyr       | Gly<br>10 | Pro | Leu | Ala | Leu       | Leu<br>15 | Gly |
| Phe      | Ser | Val | Ser<br>20 | Val      | Glu | Ala | Ala | Gln<br>25 | Arg       | Ile | Ser | Leu | Asn<br>30 | Phe       | Ser |
| Gln      | Lys | Trp | Leu       | Leu      | Thr |     |     |           |           |     |     |     |           |           |     |
|          |     | 35  |           |          |     |     |     |           |           |     |     |     |           |           |     |

<210> 295

<211> 40

<212> PRT

<213> homo sapiens

<400> 295

|          |     |           |           |          |     |     |           |           |           |     |     |     |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Phe<br>1 | Thr | Ser       | Phe       | Asn<br>5 | Leu | Leu | Ile       | Pro       | Arg<br>10 | Thr | Ile | Leu | Ser       | Thr<br>15 | Thr |
| Asn      | Arg | Asn       | Glu<br>20 | Ile      | Leu | Ile | His       | Lys<br>25 | Arg       | Lys | Leu | Lys | Thr<br>30 | Phe       | Ile |
| Ala      | Tyr | Val<br>35 | Gly       | Leu      | Ser | Asn | Lys<br>40 |           |           |     |     |     |           |           |     |

<210> 296

<211> 71

<212> PRT

<213> homo sapiens

<400> 296

|           |           |           |           |          |           |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Val<br>1  | Asn       | Leu       | Leu       | Lys<br>5 | Tyr       | Gly       | Gln       | Ile       | His<br>10 | Leu | Ala       | Val       | Lys       | Gln<br>15 | Leu |
| Asn       | Ile       | His       | Cys<br>20 | Tyr      | Leu       | Ile       | Lys       | Val<br>25 | Phe       | Val | Ser       | Val       | Leu<br>30 | Pro       | Gly |
| Pro       | Asn       | Ile<br>35 | Lys       | Thr      | Thr       | Ser       | Val<br>40 | Gln       | Lys       | Ile | Asn       | Val<br>45 | Gln       | Arg       | Ala |
| Val       | Cys<br>50 | Ser       | Leu       | Phe      | Trp       | Tyr<br>55 | Val       | His       | Phe       | Lys | Lys<br>60 | Thr       | Pro       | Leu       | Ser |
| Ser<br>65 | Leu       | Ala       | Asn       | Gln      | Glu<br>70 | Tyr       |           |           |           |     |           |           |           |           |     |

<210> 297

<211> 67

<212> PRT

<213> homo sapiens

<400> 297

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Arg<br>1 | Phe | Tyr | Leu       | Tyr<br>5 | Phe | Ile | Leu | Ser       | Arg<br>10 | Gly | Thr | Asn | Ser       | Arg<br>15 | His |
| Thr      | Phe | Ala | Arg<br>20 | Pro      | Ser | Cys | Arg | Lys<br>25 | Thr       | Gln | Ser | Arg | Lys<br>30 | Gly       | Lys |
| Asn      | Lys | Ile | Ala       | Ile      | Lys | Tyr | Met | Val       | Leu       | Gly | Ala | Gly | Arg       | Thr       | Arg |

002221"56EE2960

00222T 56552960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Asn | Pro | Gln | Gly | Asp | Gln | Phe | Leu | Ala | Arg | Ser | Phe | Phe | Arg | Val | Tyr |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Pro | Val | Glu |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 298  
 <211> 56  
 <212> PRT  
 <213> homo sapiens

<400> 298

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asn | Leu | Glu | Phe | Phe | Ser | Pro | Ser | Thr | Ser | Tyr | Leu | Leu | Leu | Gln |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Asn | Ser | Ser | Glu | Gly | Phe | Ile | Tyr | Ile | Leu | Ser | Tyr | Pro | Glu | Gly | Pro |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Thr | Ala | Gly | Ile | Pro | Leu | Pro | Gly | Leu | Leu | Ala | Glu | Arg | His | Arg | Ala |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Val | Lys | Ala | Lys | Ile | Lys | Leu | Gln |     |     |     |     |     |     |     |     |
|     | 50  |     |     |     |     | 55  |     |     |     |     |     |     |     |     |     |

<210> 299  
 <211> 140  
 <212> PRT  
 <213> homo sapiens

<400> 299

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Asn | Ser | Arg | Gly | Ala | Gly | Arg | Val | Val | Arg | Gly | Ser | Ala | Arg |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Gly | Val | Gly | Arg | Ser | Cys | Ala | Ser | Trp | Leu | Pro | Val | Gly | Arg | Arg | Cys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Arg | Thr | Ser | Glu | Thr | Gly | Ser | Gly | Ala | Ser | Arg | Arg | Ser | Arg | Ala | Ile |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Gly | Ser | Pro | Pro | Pro | Ser | Pro | Cys | Pro | Trp | Ser | Ala | Asn | Ser | Ala | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ser | Ala | Arg | Pro | Thr | Ser | Ser | Ser | Gly | Pro | Lys | Pro | Ser | Phe | Ile | Ala |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Phe | Arg | Phe | Gly | Gly | Gln | Ser | Leu | Pro | Pro | Phe | Ile | Ser | Leu | Trp | Val |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Gln | Glu | Leu | Asp | Phe | Phe | Ile | Trp | Ser | Ile | Tyr | Ile | Ser | Tyr | Ile | Ser |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Ile | Leu | Arg | Asp | Leu | Lys | Gln | Glu | Leu | Leu | Met | Gly | Gly | Gln | Gln | Thr |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Ile | Tyr | Ser | Cys | Ser | Ser | Leu | Thr | Gly | Phe | Ala | Ser |     |     |     |     |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |

<210> 300  
 <211> 279

<212> PRT  
<213> homo sapiens

<400> 300

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gln<br>1   | Ser        | Arg        | Ser        | Arg<br>5   | Pro        | Arg        | Arg        | Glu        | Gly<br>10  | Val        | Gly        | Thr        | Gly        | Ser<br>15  | Arg        |
| Ala        | Val        | Leu        | Cys<br>20  | Ile        | Leu        | Ala        | Thr        | Cys<br>25  | Gly        | Ser        | Lys        | Met        | Ser<br>30  | Asp        | Ile        |
| Gly        | Asp        | Trp<br>35  | Phe        | Arg        | Ser        | Ile        | Pro<br>40  | Ala        | Ile        | Thr        | Arg        | Tyr<br>45  | Trp        | Phe        | Ala        |
| Ala        | Thr<br>50  | Val        | Ala        | Val        | Pro        | Leu<br>55  | Val        | Gly        | Lys        | Leu        | Gly<br>60  | Leu        | Ile        | Ser        | Pro        |
| Ala<br>65  | Tyr        | Leu        | Phe        | Leu        | Trp<br>70  | Pro        | Glu        | Ala        | Phe        | Leu<br>75  | Tyr        | Arg        | Phe        | Gln        | Ile<br>80  |
| Trp        | Arg        | Pro        | Ile        | Thr<br>85  | Ala        | Thr        | Phe        | Tyr        | Phe<br>90  | Pro        | Val        | Gly        | Pro        | Gly<br>95  | Thr        |
| Gly        | Phe        | Leu        | Tyr<br>100 | Leu        | Val        | Asn        | Leu        | Tyr<br>105 | Phe        | Leu        | Tyr        | Gln        | Tyr<br>110 | Ser        | Thr        |
| Arg        | Leu        | Glu<br>115 | Thr        | Gly        | Ala        | Phe        | Asp<br>120 | Gly        | Arg        | Pro        | Ala        | Asp<br>125 | Tyr        | Leu        | Phe        |
| Met        | Leu<br>130 | Leu        | Phe        | Asn        | Trp        | Ile<br>135 | Cys        | Ile        | Val        | Ile        | Thr<br>140 | Gly        | Leu        | Ala        | Met        |
| Asp<br>145 | Met        | Gln        | Leu        | Leu        | Met<br>150 | Ile        | Pro        | Leu        | Ile        | Met<br>155 | Ser        | Val        | Leu        | Tyr        | Val<br>160 |
| Trp        | Ala        | Gln        | Leu        | Asn<br>165 | Arg        | Asp        | Met        | Ile        | Val<br>170 | Ser        | Phe        | Trp        | Phe        | Gly<br>175 | Thr        |
| Arg        | Phe        | Lys        | Ala<br>180 | Cys        | Tyr        | Leu        | Pro        | Trp<br>185 | Val        | Ile        | Leu        | Gly        | Phe<br>190 | Asn        | Tyr        |
| Ile        | Ile        | Gly<br>195 | Gly        | Ser        | Val        | Ile        | Asn<br>200 | Glu        | Leu        | Ile        | Gly        | Asn<br>205 | Leu        | Val        | Gly        |
| His        | Leu<br>210 | Tyr        | Phe        | Phe        | Leu        | Met<br>215 | Phe        | Arg        | Tyr        | Pro        | Met<br>220 | Asp        | Leu        | Gly        | Gly        |
| Arg<br>225 | Asn        | Phe        | Leu        | Ser        | Thr<br>230 | Pro        | Gln        | Phe        | Leu        | Tyr<br>235 | Arg        | Trp        | Leu        | Pro        | Ser<br>240 |
| Arg        | Arg        | Gly        | Gly        | Val<br>245 | Ser        | Gly        | Phe        | Gly        | Val<br>250 | Pro        | Pro        | Ala        | Ser        | Met<br>255 | Arg        |
| Arg        | Ala        | Ala        | Asp<br>260 | Gln        | Asn        | Gly        | Gly        | Gly<br>265 | Gly        | Arg        | His        | Asn        | Trp<br>270 | Gly        | Gln        |
| Gly        | Phe        | Arg<br>275 | Leu        | Gly        | Asp        | Gln        |            |            |            |            |            |            |            |            |            |

<210> 301  
<211> 106  
<212> PRT  
<213> homo sapiens

004227" 5552960

**06097**

```
<210> 302
<211> 207
<212> PRT
<213> homo sapiens
```

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Leu<br>1   | Glu        | Pro        | Leu        | Glu<br>5   | Pro        | Asn        | Arg        | Leu        | Glu<br>10  | Leu        | Lys        | Lys        | Gly        | Tyr<br>15  | Leu        |
| Thr        | Leu        | Ser        | Asp<br>20  | Ser        | Gly        | Asp        | Lys        | Val<br>25  | Ala        | Val        | Glu        | Trp        | Asp<br>30  | Lys        | Asp        |
| His        | Gly        | Val<br>35  | Leu        | Glu        | Ser        | His        | Leu<br>40  | Ala        | Glu        | Lys        | Gly        | Arg<br>45  | Gly        | Met        | Glu        |
| Leu        | Ser<br>50  | Asp        | Leu        | Ile        | Val        | Phe<br>55  | Asn        | Gly        | Lys        | Leu        | Tyr<br>60  | Ser        | Val        | Asp        | Asp        |
| Arg<br>65  | Thr        | Gly        | Val        | Val        | Tyr<br>70  | Gln        | Ile        | Glu        | Gly        | Ser<br>75  | Lys        | Ala        | Val        | Pro        | Trp<br>80  |
| Val        | Ile        | Leu        | Ser        | Asp<br>85  | Gly        | Asp        | Gly        | Thr        | Val<br>90  | Glu        | Lys        | Gly        | Phe        | Lys<br>95  | Ala        |
| Glu        | Trp        | Leu        | Ala<br>100 | Val        | Lys        | Asp        | Glu        | Arg<br>105 | Leu        | Tyr        | Val        | Gly        | Gly<br>110 | Leu        | Gly        |
| Lys        | Glu        | Trp<br>115 | Thr        | Thr        | Thr        | Thr        | Gly<br>120 | Asp        | Val        | Val        | Asn        | Glu<br>125 | Asn        | Pro        | Glu        |
| Trp        | Val<br>130 | Lys        | Val        | Val        | Gly        | Tyr<br>135 | Lys        | Gly        | Ser        | Val        | Asp<br>140 | His        | Glu        | Asn        | Trp        |
| Val<br>145 | Ser        | Asn        | Tyr        | Asn        | Ala<br>150 | Leu        | Arg        | Ala        | Ala        | Ala<br>155 | Gly        | Ile        | Gln        | Pro        | Pro<br>160 |
| Gly        | Asn        | Leu        | Ile        | His<br>165 | Glu        | Ser        | Ala        | Cys        | Trp<br>170 | Ser        | Asp        | Thr        | Leu        | Gln<br>175 | Arg        |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Phe | Phe | Leu | Pro | Arg | Arg | Ala | Ser | Gln | Glu | Arg | Tyr | Ser | Glu | Glu |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Gly | Arg | Arg | Ala | Gln | Gly | Arg | Gln | Pro | Ala | Ala | Glu | Arg | Leu | Pro |     |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |

<210> 303  
 <211> 153  
 <212> PRT  
 <213> homo sapiens

<400> 303

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Trp | Trp | Ala | Thr | Arg | Ala | Ala | Trp | Thr | Thr | Arg | Thr | Gly | Cys | Pro |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Thr | Thr | Thr | Pro | Cys | Gly | Leu | Leu | Pro | Ala | Ser | Ser | Arg | Gln | Val | Thr |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ser | Ser | Met | Ser | Leu | Pro | Ala | Gly | Val | Thr | Arg | Cys | Ser | Ala | Gly | Ser |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Cys | Arg | Ala | Ala | Pro | Ala | Arg | Ser | Ala | Thr | Ala | Arg | Lys | Asp | Asp |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Glu | Arg | Lys | Gly | Ala | Asn | Leu | Leu | Leu | Ser | Ala | Ser | Pro | Asp | Phe | Gly |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Asp | Ile | Ala | Val | Ser | His | Val | Gly | Ala | Val | Val | Pro | Thr | His | Gly | Phe |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Ser | Ser | Phe | Lys | Phe | Ile | Pro | Asn | Thr | Asp | Asp | Gln | Ile | Ile | Val | Ala |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Leu | Lys | Ser | Glu | Glu | Asp | Ser | Gly | Arg | Val | Ala | Ser | Tyr | Ile | Met | Ala |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Phe | Thr | Leu | Asp | Gly | Arg | Phe | Leu | Leu | Pro | Glu | Thr | Lys | Ile | Gly | Ser |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Val | Lys | Tyr | Glu | Gly | Ile | Glu | Phe | Ile |     |     |     |     |     |     |     |
| 145 |     |     |     |     | 150 |     |     |     |     |     |     |     |     |     |     |

<210> 304  
 <211> 174  
 <212> PRT  
 <213> homo sapiens

<400> 304

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Gly | Thr | Thr | Ala | Pro | Thr | Trp | Leu | Thr | Ala | Met | Ser | Pro | Lys | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Gly | Glu | Ala | Leu | Ser | Ser | Arg | Leu | Ala | Pro | Leu | Arg | Ser | Ser | Ser | Phe |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | Ala | Val | Ala | Leu | Leu | Ala | Gly | Ala | Ala | Arg | Gln | Glu | Glu | Pro | Ala |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Leu | Gln | Arg | Val | Thr | Pro | Ala | Gly | Arg | Leu | Met | Asp | Glu | Val | Thr | Trp |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

002227 563395 122700



002221" 5622960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|
| Arg<br>65  | Leu        | Asp        | Ala        | Gly        | Ser<br>70  | Ser        | Pro        | Gln        | Gly        | Val<br>75  | Val        | Val        | Gly        | His       | Pro<br>80  |
| Val        | Leu        | Val        | Val        | His<br>85  | Ala        | Ala        | Leu        | Val        | Ala<br>90  | His        | His        | Leu        | His        | Pro<br>95 | Leu        |
| Arg        | Val        | Leu        | Val<br>100 | His        | His        | Ile        | Thr        | Arg<br>105 | Ser        | Gly        | Arg        | Pro        | Leu<br>110 | Leu       | Ala        |
| Gln        | Ala        | Ala<br>115 | His        | Val        | Gln        | Thr        | Leu<br>120 | Val        | Leu        | His        | Cys        | Gln<br>125 | Pro        | Phe       | Gly        |
| Leu        | Glu<br>130 | Ala        | Phe        | Leu        | His        | Gly<br>135 | Ala        | Val        | Ala        | Val        | Gly<br>140 | Gln        | Asn        | His       | Pro        |
| Gly<br>145 | His        | Gly        | Phe        | Ala        | Ala<br>150 | Phe        | Asp        | Leu        | Val        | Asp<br>155 | Asp        | Pro        | Arg        | Pro       | Val<br>160 |
| Ile        | His        | Gly        | Val        | Glu<br>165 | Phe        | Pro        | Ile        | Glu        | Asn<br>170 | Asn        | Gln        | Val        | Gly        |           |            |

<210> 305  
 <211> 61  
 <212> PRT  
 <213> homo sapiens

<400> 305

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Lys<br>1 | Leu       | Val       | Cys       | Leu<br>5 | Glu | Ala       | Asp       | Ser       | Lys<br>10 | Ser | Ser       | Phe       | Ser       | Ser<br>15 | Glu |
| His      | Leu       | Phe       | Ser<br>20 | Tyr      | His | Leu       | Ile       | Ser<br>25 | Ile       | Leu | Lys       | His       | His<br>30 | Gly       | Cys |
| Ser      | Cys       | Ser<br>35 | Lys       | Met      | Gly | Asp       | Val<br>40 | Lys       | Glu       | Asn | Tyr       | Leu<br>45 | Glu       | Thr       | Phe |
| Ile      | Ser<br>50 | Ser       | Pro       | Lys      | Trp | Ser<br>55 | Phe       | Ile       | Leu       | Cys | Leu<br>60 | Ser       |           |           |     |

<210> 306  
 <211> 144  
 <212> PRT  
 <213> homo sapiens

<400> 306

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Asn<br>1  | Thr       | Met       | Ala       | Val<br>5 | Ala       | Ala       | Val       | Lys       | Trp<br>10 | Val       | Met       | Ser       | Lys       | Arg<br>15 | Thr       |
| Ile       | Leu       | Lys       | His<br>20 | Leu      | Phe       | Pro       | Val       | Gln<br>25 | Asn       | Gly       | Ala       | Leu       | Tyr<br>30 | Cys       | Val       |
| Cys       | His       | Lys<br>35 | Ser       | Thr      | Tyr       | Ser       | Pro<br>40 | Leu       | Pro       | Asp       | Asp       | Tyr<br>45 | Asn       | Cys       | Asn       |
| Val       | Glu<br>50 | Leu       | Ala       | Leu      | Thr       | Ser<br>55 | Asp       | Gly       | Arg       | Thr       | Ile<br>60 | Val       | Cys       | Tyr       | His       |
| Pro<br>65 | Ser       | Val       | Asp       | Ile      | Pro<br>70 | Tyr       | Glu       | His       | Thr       | Lys<br>75 | Pro       | Ile       | Pro       | Arg       | Pro<br>80 |
| Asp       | Pro       | Val       | His       | Asn      | Asn       | Glu       | Glu       | Thr       | His       | Asp       | Gln       | Val       | Leu       | Lys       | Thr       |

00673395-122700

| 85  |     |     |     |     |     |     |     | 90  |     |     |     | 95  |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Glu | Glu | Lys | Val | Glu | His | Leu | Glu | Glu | Gly | Pro | Met | Ile | Glu |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Gln | Leu | Ser | Lys | Met | Phe | Phe | Thr | Thr | Lys | His | Arg | Trp | Tyr | Pro | His |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Gly | Arg | Tyr | His | Arg | Cys | Arg | Lys | Asn | Leu | Asn | Pro | Pro | Lys | Asp | Arg |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |

<210> 307  
 <211> 128  
 <212> PRT  
 <213> homo sapiens

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | His | Gln | Thr | Ala | Phe | Ser | Gln | Met | Ala | Asn | Glu | Ala | His | Phe | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | Ile | Pro | Pro | Gly | Thr | Ser | Ala | Ser | Ser | Val | Phe | Trp | Arg | Ile | Gln |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ile | Leu | Thr | Thr | Ser | Val | Ile | Pro | Ser | Met | Arg | Ile | Pro | Thr | Val | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Ser | Lys | Glu | His | Phe | Ala | Lys | Leu | Phe | Tyr | His | Arg | Ser | Phe | Leu |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Lys | Val | Phe | Asn | Phe | Phe | Phe | Gln | Ser | Gly | Phe | Gln | His | Leu | Ile | Met |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Cys | Phe | Phe | Ile | Ile | Met | His | Arg | Ile | Trp | Pro | Arg | Asp | Arg | Phe | Cys |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Val | Phe | Ile | Trp | Asn | Val | His | Arg | Arg | Val | Val | Ala | Tyr | Tyr | Cys | Pro |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Ala | Ile | Arg | Ser | Gln | Ser | Lys | Leu | Tyr | Val | Ala | Ile | Ile | Val | Ile | Trp |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |

<210> 308  
 <211> 467  
 <212> PRT  
 <213> homo sapiens

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Arg | Ser | Lys | Met | Ala | Ala | Leu | Arg | Ala | Leu | Cys | Gly | Phe | Arg | Gly |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Val | Ala | Ala | Gln | Val | Leu | Arg | Pro | Gly | Ala | Gly | Val | Arg | Leu | Pro | Ile |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gln | Pro | Ser | Arg | Gly | Val | Arg | Gln | Trp | Gln | Pro | Asp | Val | Glu | Trp | Ala |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Gln | Gln | Phe | Gly | Gly | Ala | Val | Met | Tyr | Pro | Ser | Lys | Glu | Thr | Ala | His |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Trp | Lys | Pro | Pro | Pro | Trp | Asn | Asp | Val | Asp | Pro | Pro | Lys | Asp | Thr | Ile |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |

00673395-122700

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Val        | Lys        | Asn        | Ile        | Thr<br>85  | Leu        | Asn        | Phe        | Gly        | Pro<br>90  | Gln        | His        | Pro        | Ala        | Ala<br>95  | His        |  |
| Gly        | Val        | Leu        | Arg<br>100 | Leu        | Val        | Met        | Glu        | Leu<br>105 | Ser        | Gly        | Glu        | Met        | Val<br>110 | Arg        | Lys        |  |
| Cys        | Asp        | Pro<br>115 | His        | Ile        | Gly        | Leu        | Leu<br>120 | His        | Arg        | Gly        | Thr        | Glu<br>125 | Lys        | Leu        | Ile        |  |
| Glu        | Tyr<br>130 | Lys        | Thr        | Tyr        | Leu        | Gln<br>135 | Ala        | Leu        | Pro        | Tyr        | Phe<br>140 | Asp        | Arg        | Leu        | Asp        |  |
| Tyr<br>145 | Val        | Ser        | Met        | Met        | Cys<br>150 | Asn        | Glu        | Gln        | Ala        | Tyr<br>155 | Ser        | Leu        | Ala        | Val        | Glu<br>160 |  |
| Lys        | Leu        | Leu        | Asn        | Ile<br>165 | Arg        | Pro        | Pro        | Pro        | Arg<br>170 | Ala        | Gln        | Trp        | Ile        | Arg<br>175 | Val        |  |
| Leu        | Phe        | Gly        | Glu<br>180 | Ile        | Thr        | Arg        | Leu        | Leu<br>185 | Asn        | His        | Ile        | Met        | Ala<br>190 | Val        | Thr        |  |
| Thr        | His        | Ala<br>195 | Leu        | Asp        | Leu        | Gly        | Ala<br>200 | Met        | Thr        | Pro        | Phe        | Phe<br>205 | Trp        | Leu        | Phe        |  |
| Glu        | Glu<br>210 | Arg        | Glu        | Lys        | Met        | Phe<br>215 | Glu        | Phe        | Tyr        | Glu        | Arg<br>220 | Val        | Ser        | Gly        | Ala        |  |
| Arg<br>225 | Met        | His        | Ala        | Ala        | Tyr<br>230 | Ile        | Arg        | Pro        | Gly        | Gly<br>235 | Val        | His        | Gln        | Asp        | Leu<br>240 |  |
| Pro        | Leu        | Gly        | Leu        | Met<br>245 | Asp        | Asp        | Ile        | Tyr        | Gln<br>250 | Phe        | Ser        | Lys        | Asn        | Phe<br>255 | Ser        |  |
| Leu        | Arg        | Leu        | Asp<br>260 | Glu        | Leu        | Glu        | Glu        | Leu<br>265 | Leu        | Thr        | Asn        | Asn        | Arg<br>270 | Ile        | Trp        |  |
| Arg        | Asn        | Arg<br>275 | Thr        | Ile        | Asp        | Ile        | Gly<br>280 | Val        | Val        | Thr        | Ala        | Glu<br>285 | Glu        | Ala        | Leu        |  |
| Asn        | Tyr<br>290 | Gly        | Phe        | Ser        | Gly        | Val<br>295 | Met        | Leu        | Arg        | Gly        | Ser<br>300 | Gly        | Ile        | Gln        | Trp        |  |
| Asp<br>305 | Leu        | Arg        | Lys        | Thr        | Gln<br>310 | Pro        | Tyr        | Asp        | Val        | Tyr<br>315 | Asp        | Gln        | Val        | Glu        | Phe<br>320 |  |
| Asp        | Val        | Pro        | Val        | Gly<br>325 | Ser        | Arg        | Gly        | Asp        | Cys<br>330 | Tyr        | Asp        | Arg        | Tyr        | Leu<br>335 | Cys        |  |
| Arg        | Val        | Glu        | Glu<br>340 | Met        | Arg        | Gln        | Ser        | Leu<br>345 | Arg        | Ile        | Ile        | Ala        | Gln<br>350 | Cys        | Leu        |  |
| Asn        | Lys        | Met<br>355 | Pro        | Pro        | Gly        | Glu        | Ile<br>360 | Lys        | Val        | Asp        | Asp        | Ala<br>365 | Lys        | Val        | Ser        |  |
| Pro        | Pro<br>370 | Lys        | Arg        | Ala        | Glu        | Met<br>375 | Lys        | Thr        | Ser        | Met        | Glu<br>380 | Ser        | Leu        | Ile        | His        |  |
| His<br>385 | Phe        | Lys        | Leu        | Tyr        | Thr<br>390 | Glu        | Gly        | Tyr        | Gln        | Val<br>395 | Pro        | Pro        | Gly        | Ala        | Thr<br>400 |  |
| Tyr        | Thr        | Ala        | Ile        | Glu<br>405 | Ala        | Pro        | Lys        | Gly        | Glu<br>410 | Phe        | Gly        | Val        | Tyr        | Leu<br>415 | Val        |  |



|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Lys | Leu | Leu | Cys | Pro | Phe | His | Ile | Trp | Leu | Pro | Leu | Pro | Asn | Thr |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ser | Ala | Gly | Leu | Asn | Arg | Gln | Ser | Asp | Ser | Ser | Pro | Arg | Pro | Gln | His |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Leu | Gly | Arg | Asp | Ala | Pro | Glu | Ala | Ala | Gln | Ser | Pro | Gln | Arg | Arg | His |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Leu | Thr | Pro | Ala |     |     |     |     |     |     |     |     |     |     |     |     |
|     |     |     | 100 |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 311  
 <211> 162  
 <212> PRT  
 <213> homo sapiens

<400> 311

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Leu | Arg | Gly | Gly | Glu | Pro | Ser | Thr | Asp | Arg | Arg | Arg | Asp | Pro |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Glu | Ser | Arg | Thr | Pro | Ala | Pro | Pro | Pro | Thr | Pro | Arg | Ala | Met | Asp | Pro |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Lys | Asp | Arg | Lys | Lys | Ile | Gln | Phe | Ser | Val | Pro | Ala | Pro | Pro | Ser | Gln |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Leu | Asp | Pro | Arg | Gln | Val | Glu | Met | Ile | Arg | Arg | Arg | Arg | Pro | Thr | Pro |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ala | Met | Leu | Phe | Arg | Leu | Ser | Glu | His | Ser | Ser | Pro | Glu | Glu | Glu | Ala |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Ser | Pro | His | Gln | Arg | Ala | Ser | Gly | Glu | Gly | His | His | Leu | Lys | Ser | Lys |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Arg | Pro | Asn | Pro | Cys | Ala | Tyr | Thr | Pro | Pro | Ser | Leu | Lys | Ala | Val | Gln |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Arg | Ile | Ala | Glu | Ser | His | Leu | Gln | Ser | Ile | Ser | Asn | Leu | Asn | Glu | Asn |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Gln | Ala | Ser | Glu | Glu | Glu | Asp | Glu | Leu | Gly | Glu | Leu | Arg | Glu | Leu | Gly |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Tyr | Pro | Arg | Glu | Glu | Asp | Glu | Glu | Glu | Glu | Glu | Asp | Ala | Ala | Arg | Leu |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Lys | Ser |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 312  
 <211> 154  
 <212> PRT  
 <213> homo sapiens

<400> 312

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ser | Leu | Gly | Arg | Asn | Leu | Ser | Ala | Leu | Pro | Pro | Leu | Ser | Leu | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| His | Arg | His | Pro | Ala | Cys | Ile | Ser | Gln | Glu | Glu | Val | Glu | Gly | Thr | Ser |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |

002227 5662960



|            |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|
| Arg        | Phe        | Pro        | Ala<br>20  | Val       | Ala        | Gly        | Arg        | Ala<br>25  | Pro       | Arg        | Arg        | Gln        | Glu<br>30  | Glu       | Gly        |
| Glu        | Arg        | Ser<br>35  | Arg        | Asp       | Leu        | Gln        | Glu<br>40  | Glu        | Arg       | Leu        | Ser        | Ala<br>45  | Val        | Cys       | Ile        |
| Ala        | Asp<br>50  | Arg        | Glu        | Glu       | Lys        | Gly<br>55  | Cys        | Thr        | Ser       | Gln        | Glu<br>60  | Gly        | Gly        | Thr       | Thr        |
| Pro<br>65  | Thr        | Phe        | Pro        | Ile       | Gln<br>70  | Lys        | Gln        | Arg        | Lys       | Lys<br>75  | Ile        | Ile        | Gln        | Ala       | Val<br>80  |
| Arg        | Asp        | Asn        | Ser        | Phe<br>85 | Leu        | Ile        | Val        | Thr        | Gly<br>90 | Asn        | Thr        | Gly        | Ser        | Gly<br>95 | Lys        |
| Thr        | Thr        | Gln        | Leu<br>100 | Pro       | Lys        | Tyr        | Leu        | Tyr<br>105 | Glu       | Ala        | Gly        | Phe        | Ser<br>110 | Gln       | His        |
| Gly        | Met        | Ile<br>115 | Gly        | Val       | Thr        | Gln        | Pro<br>120 | Arg        | Lys       | Val        | Ala        | Ala<br>125 | Ile        | Ser       | Val        |
| Ala        | Gln<br>130 | Arg        | Val        | Ala       | Glu        | Glu<br>135 | Met        | Lys        | Cys       | Thr        | Leu<br>140 | Gly        | Ser        | Lys       | Val        |
| Gly<br>145 | Tyr        | Gln        | Val        | Arg       | Phe<br>150 | Asp        | Asp        | Cys        | Ser       | Ser<br>155 | Lys        | Glu        | Thr        | Ala       | Ile<br>160 |

Lys Tyr

<210> 315  
 <211> 79  
 <212> PRT  
 <213> homo sapiens

&lt;400&gt; 315

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| Gln<br>1  | Ile       | Gly       | Gly       | Arg<br>5 | Ala       | Arg       | Leu       | His       | Ser<br>10 | Gly       | Pro       | Gly       | Leu       | Cys<br>15 | Pro |
| Gly       | Phe       | Pro       | Gln<br>20 | Ser      | Arg       | Ala       | Gly       | Arg<br>25 | Gln       | Gly       | Gly       | Arg       | Arg<br>30 | Arg       | Val |
| Ser       | Gly       | Gln<br>35 | Glu       | Thr      | Ser       | Arg       | Lys<br>40 | Ser       | Gly       | Ser       | Arg       | Leu<br>45 | Phe       | Ala       | Ser |
| Pro       | Ile<br>50 | Glu       | Lys       | Arg      | Lys       | Asp<br>55 | Ala       | Arg       | Pro       | Arg       | Arg<br>60 | Glu       | Glu       | Leu       | Leu |
| Gln<br>65 | Leu       | Phe       | Leu       | Phe      | Arg<br>70 | Asn       | Lys       | Glu       | Lys       | Arg<br>75 | Leu       | Phe       | Lys       | Leu       |     |

<210> 316  
 <211> 69  
 <212> PRT  
 <213> homo sapiens

&lt;400&gt; 316

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Ile<br>1 | Gly | Lys | Val       | Gly<br>5 | Val | Val | Pro | Pro       | Ser<br>10 | Trp | Asp | Val | His       | Pro<br>15 | Phe |
| Ser      | Ser | Leu | Ser<br>20 | Ala      | Met | Gln | Thr | Ala<br>25 | Glu       | Ser | Arg | Ser | Ser<br>30 | Trp       | Arg |

|           |           |           |     |     |     |           |           |     |     |     |           |           |     |     |     |
|-----------|-----------|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|
| Ser       | Leu       | Asp<br>35 | Arg | Ser | Pro | Ser       | Ser<br>40 | Cys | Arg | Leu | Gly       | Ala<br>45 | Leu | Pro | Ala |
| Thr       | Ala<br>50 | Gly       | Asn | Arg | Asp | Ile<br>55 | Asp       | Leu | Ala | Pro | Ser<br>60 | Gly       | Gly | Glu | His |
| Val<br>65 | His       | Arg       | Ser | Glu |     |           |           |     |     |     |           |           |     |     |     |

<210> 317  
 <211> 173  
 <212> PRT  
 <213> homo sapiens

<400> 317

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|
| Ala<br>1   | Gln        | Glu        | Ser        | Pro<br>5   | Trp        | Gln        | Leu        | Cys        | Arg<br>10  | Gly        | Ala        | Arg        | Thr        | Ser<br>15 | Lys        |
| Arg        | Lys        | Leu        | Pro<br>20  | Lys        | Leu        | Gly        | Met        | Glu<br>25  | Gln        | His        | Cys        | Asn        | Glu<br>30  | Met       | Cys        |
| Pro        | Pro        | Ser<br>35  | Ser        | Leu        | Phe        | Leu        | Pro<br>40  | Gly        | Ala        | Tyr        | Lys        | Ala<br>45  | Gln        | Met       | Tyr        |
| Ser        | Asp<br>50  | Val        | Trp        | Thr        | Asn        | Thr<br>55  | Lys        | Lys        | Lys        | Lys        | Lys<br>60  | Lys        | Lys        | Lys       | Lys        |
| Lys<br>65  | Ala        | Phe        | Leu        | Ser        | His<br>70  | Arg        | His        | Lys        | Thr        | Gln<br>75  | Ile        | Ile        | Tyr        | Cys       | Tyr<br>80  |
| Glu        | Ala        | Leu        | Phe        | Thr<br>85  | Asn        | Gly        | Gln        | Phe        | Leu<br>90  | His        | Phe        | Ile        | Ala        | Ala<br>95 | Cys        |
| Glu        | Arg        | Leu        | Pro<br>100 | Asp        | Gly        | Arg        | Pro        | Ile<br>105 | Ser        | Leu        | Val        | Leu        | Gln<br>110 | Thr       | Ser        |
| Ser        | Gln        | Ala<br>115 | Ala        | Phe        | Tyr        | Gln        | Lys<br>120 | Gly        | Glu        | Asn        | Ser        | Cys<br>125 | Leu        | Ser       | Phe        |
| Leu        | Lys<br>130 | Asn        | Ala        | Phe        | Leu        | Tyr<br>135 | Leu        | Ser        | Ile        | Arg        | His<br>140 | Tyr        | Thr        | Ser       | Glu        |
| Leu<br>145 | Tyr        | Lys        | Arg        | Pro        | Gly<br>150 | Gly        | Thr        | Met        | Ser        | Leu<br>155 | Val        | Asp        | Thr        | Phe       | His<br>160 |
| Cys        | Ser        | Val        | Ala        | Pro<br>165 | Phe        | Leu        | Ala        | Trp        | Glu<br>170 | Ala        | Ser        | Ala        |            |           |            |

<210> 318  
 <211> 96  
 <212> PRT  
 <213> homo sapiens

<400> 318

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Ala<br>1 | Gln | Glu | Ser       | Pro<br>5 | Trp | Gln | Leu | Cys       | Arg<br>10 | Gly | Ala | Arg | Thr       | Ser<br>15 | Lys |
| Arg      | Lys | Leu | Pro<br>20 | Lys      | Leu | Gly | Met | Glu<br>25 | Gln       | His | Cys | Asn | Glu<br>30 | Met       | Cys |

002221" 96673395" 122700





<210> 321  
 <211> 159  
 <212> PRT  
 <213> homo sapiens

<400> 321

|            |            |            |            |           |            |            |            |            |           |            |            |            |            |           |           |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|-----------|
| Arg<br>1   | Ala        | Ser        | Pro        | Cys<br>5  | Pro        | His        | Gly        | Gly        | Gln<br>10 | Gln        | Arg        | Arg        | Arg        | Arg<br>15 | Arg       |
| Leu        | Asn        | Ala        | Glu<br>20  | Gly       | Ala        | Glu        | Gly        | Ala<br>25  | Arg       | Gly        | Gly        | Gly        | Ser<br>30  | Ser       | Tyr       |
| Ser        | Glu        | Met<br>35  | Ala        | Glu       | Thr        | Val        | Ala<br>40  | Asp        | Thr       | Arg        | Arg        | Leu<br>45  | Ile        | Thr       | Lys       |
| Pro        | Gln<br>50  | Asn        | Leu        | Asn       | Asp        | Ala<br>55  | Tyr        | Gly        | Pro       | Pro        | Ser<br>60  | Asn        | Phe        | Leu       | Glu       |
| Ile<br>65  | Asp        | Val        | Ser        | Asn       | Pro<br>70  | Gln        | Thr        | Val        | Gly       | Val<br>75  | Gly        | Arg        | Gly        | Arg       | Phe<br>80 |
| Thr        | Thr        | Tyr        | Glu        | Ile<br>85 | Arg        | Val        | Lys        | Thr        | Asn<br>90 | Leu        | Pro        | Ile        | Phe        | Lys<br>95 | Leu       |
| Lys        | Glu        | Ser        | Thr<br>100 | Val       | Arg        | Arg        | Arg        | Tyr<br>105 | Ser       | Asp        | Phe        | Glu        | Trp<br>110 | Leu       | Arg       |
| Ser        | Glu        | Leu<br>115 | Glu        | Arg       | Glu        | Ser        | Lys<br>120 | Val        | Val       | Val        | Pro        | Pro<br>125 | Leu        | Pro       | Gly       |
| Lys        | Ala<br>130 | Phe        | Leu        | Arg       | Gln        | Phe<br>135 | Leu        | Leu        | Glu       | Glu        | Met<br>140 | Met        | Glu        | Tyr       | Leu       |
| Met<br>145 | Thr        | Ile        | Leu        | Leu       | Arg<br>150 | Lys        | Glu        | Asn        | Lys       | Gly<br>155 | Trp        | Ser        | Ser        | Leu       |           |

<210> 322  
 <211> 114  
 <212> PRT  
 <213> homo sapiens

<400> 322

|           |     |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Phe<br>1  | Thr | Ser       | Gln       | Pro<br>5  | Phe       | Lys       | Val       | Thr       | Val<br>10 | Ser       | Ser       | Ser       | Asn       | Ser<br>15 | Arg       |
| Phe       | Phe | Gln       | Leu<br>20 | Glu       | Asn       | Arg       | Lys       | Ile<br>25 | Cys       | Leu       | Asp       | Pro       | Asp<br>30 | Phe       | Val       |
| Ser       | Gly | Glu<br>35 | Ala       | Ala       | Pro       | Ala       | Asp<br>40 | Pro       | His       | Arg       | Leu       | Arg<br>45 | Val       | Ala       | His       |
| Ile<br>50 | Asp | Leu       | Glu       | Glu       | Val       | Ala<br>55 | Gly       | Gly       | Ser       | Val       | Gly<br>60 | Val       | Ile       | Gln       | Val       |
| Leu<br>65 | Arg | Leu       | Gly       | Asp       | Gln<br>70 | Pro       | Pro       | Gly       | Val       | Ser<br>75 | His       | Gly       | Leu       | Arg       | His<br>80 |
| Phe       | Ala | Val       | Ala       | Ala<br>85 | Ala       | Ala       | Ala       | Ala       | Gly<br>90 | Ser       | Leu       | Arg       | Pro       | Leu<br>95 | Arg       |

00673395-122700

|     |     |     |            |     |     |     |     |            |     |     |     |     |            |     |     |
|-----|-----|-----|------------|-----|-----|-----|-----|------------|-----|-----|-----|-----|------------|-----|-----|
| Val | Gln | Pro | Pro<br>100 | Pro | Pro | Pro | Leu | Leu<br>105 | Pro | Ala | Val | Gly | Thr<br>110 | Arg | Ala |
|-----|-----|-----|------------|-----|-----|-----|-----|------------|-----|-----|-----|-----|------------|-----|-----|

Arg Ala

<210> 323

<211> 374

<212> PRT

<213> homo sapiens

<400> 323

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Arg<br>1   | Arg        | Ala        | Gln        | Glu<br>5   | Ser        | Pro        | Leu        | Gly        | Arg<br>10  | Gln        | Ser        | His        | Leu        | Pro<br>15  | Arg        |
| Ile        | Tyr        | Gln        | Ala<br>20  | Phe        | Leu        | Met        | Ser        | Ala<br>25  | Thr        | Phe        | Asn        | Glu        | Asp<br>30  | Val        | Gln        |
| Ala        | Leu        | Lys<br>35  | Glu        | Leu        | Ile        | Leu        | His<br>40  | Asn        | Pro        | Val        | Thr        | Leu<br>45  | Lys        | Leu        | Gln        |
| Glu        | Ser<br>50  | Gln        | Leu        | Pro        | Gly        | Pro<br>55  | Asp        | Gln        | Leu        | Gln        | Gln<br>60  | Phe        | Gln        | Val        | Val        |
| Cys<br>65  | Glu        | Thr        | Glu        | Glu        | Asp<br>70  | Lys        | Phe        | Leu        | Leu        | Leu<br>75  | Tyr        | Ala        | Leu        | Leu        | Lys<br>80  |
| Leu        | Ser        | Leu        | Ile        | Arg<br>85  | Gly        | Lys        | Ser        | Leu        | Leu<br>90  | Phe        | Val        | Asn        | Thr        | Leu<br>95  | Glu        |
| Arg        | Ser        | Tyr        | Arg<br>100 | Leu        | Arg        | Leu        | Phe        | Leu<br>105 | Glu        | Gln        | Phe        | Ser        | Ile<br>110 | Pro        | Thr        |
| Cys        | Val        | Leu<br>115 | Asn        | Gly        | Glu        | Leu        | Pro<br>120 | Leu        | Arg        | Ser        | Arg        | Cys<br>125 | His        | Ile        | Ile        |
| Ser        | Gln<br>130 | Phe        | Asn        | Gln        | Gly        | Phe<br>135 | Tyr        | Asp        | Cys        | Val        | Ile<br>140 | Ala        | Thr        | Asp        | Ala        |
| Glu<br>145 | Val        | Leu        | Gly        | Ala        | Pro<br>150 | Val        | Lys        | Gly        | Lys        | Arg<br>155 | Arg        | Gly        | Arg        | Gly        | Pro<br>160 |
| Lys        | Gly        | Asp        | Lys        | Ala<br>165 | Ser        | Asp        | Pro        | Glu        | Ala<br>170 | Gly        | Val        | Ala        | Arg        | Gly<br>175 | Ile        |
| Asp        | Phe        | His        | His<br>180 | Val        | Ser        | Ala        | Val        | Leu<br>185 | Asn        | Phe        | Asp        | Leu        | Pro<br>190 | Pro        | Thr        |
| Pro        | Glu        | Ala<br>195 | Tyr        | Ile        | His        | Arg        | Ala<br>200 | Gly        | Arg        | Thr        | Ala        | Arg<br>205 | Ala        | Asn        | Asn        |
| Pro        | Gly<br>210 | Ile        | Val        | Leu        | Thr        | Phe<br>215 | Val        | Leu        | Pro        | Thr        | Glu<br>220 | Gln        | Phe        | His        | Leu        |
| Gly<br>225 | Lys        | Ile        | Glu        | Glu        | Leu<br>230 | Leu        | Ser        | Gly        | Glu        | Asn<br>235 | Arg        | Gly        | Pro        | Ile        | Leu<br>240 |
| Leu        | Pro        | Tyr        | Gln        | Phe<br>245 | Arg        | Met        | Glu        | Glu        | Ile<br>250 | Glu        | Gly        | Phe        | Arg        | Tyr<br>255 | Arg        |
| Cys        | Arg        | Asp        | Ala<br>260 | Met        | Arg        | Ser        | Val        | Thr<br>265 | Lys        | Gln        | Ala        | Ile        | Arg<br>270 | Glu        | Ala        |

09673395-122700

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Arg        | Leu        | Lys<br>275 | Glu        | Ile        | Lys        | Glu        | Glu<br>280 | Leu        | Leu        | His        | Ser        | Glu<br>285 | Lys        | Leu        | Lys        |
| Thr        | Tyr<br>290 | Phe        | Glu        | Asp        | Asn        | Pro<br>295 | Arg        | Asp        | Leu        | Gln        | Leu<br>300 | Leu        | Arg        | His        | Asp        |
| Leu<br>305 | Pro        | Leu        | His        | Pro        | Ala<br>310 | Val        | Val        | Lys        | Pro        | His<br>315 | Leu        | Gly        | His        | Val        | Pro<br>320 |
| Asp        | Tyr        | Leu        | Val        | Pro<br>325 | Pro        | Ala        | Leu        | Arg        | Gly<br>330 | Leu        | Val        | Arg        | Pro        | His<br>335 | Lys        |
| Lys        | Arg        | Lys        | Lys<br>340 | Leu        | Ser        | Ser        | Ser        | Cys<br>345 | Arg        | Lys        | Ala        | Lys        | Arg<br>350 | Ala        | Lys        |
| Ser        | Gln        | Asn<br>355 | Pro        | Leu        | Arg        | Ser        | Phe<br>360 | Lys        | His        | Lys        | Gly        | Lys<br>365 | Lys        | Phe        | Arg        |
| Pro        | Thr<br>370 | Ala        | Lys        | Pro        | Ser        |            |            |            |            |            |            |            |            |            |            |

<210> 324  
 <211> 224  
 <212> PRT  
 <213> homo sapiens

<400> 324

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gln<br>1   | Arg        | Val        | Arg        | Ala<br>5   | Ala        | Leu        | Leu        | Ser        | Ser<br>10  | Ala        | Met        | Glu        | Asp        | Ser<br>15  | Glu        |
| Ala        | Leu        | Gly        | Phe<br>20  | Glu        | His        | Met        | Gly        | Leu<br>25  | Asp        | Pro        | Arg        | Leu        | Leu<br>30  | Gln        | Ala        |
| Val        | Thr        | Asp<br>35  | Leu        | Gly        | Trp        | Ser        | Arg<br>40  | Pro        | Thr        | Leu        | Ile        | Gln<br>45  | Glu        | Lys        | Ala        |
| Ile        | Pro<br>50  | Leu        | Ala        | Leu        | Glu        | Gly<br>55  | Lys        | Asp        | Leu        | Leu        | Ala<br>60  | Arg        | Ala        | Arg        | Thr        |
| Gly<br>65  | Ser        | Gly        | Lys        | Thr        | Ala<br>70  | Ala        | Tyr        | Ala        | Ile        | Pro<br>75  | Met        | Leu        | Gln        | Leu        | Leu<br>80  |
| Leu        | His        | Arg        | Lys        | Ala<br>85  | Thr        | Gly        | Pro        | Val        | Val<br>90  | Glu        | Gln        | Ala        | Val        | Arg<br>95  | Gly        |
| Leu        | Val        | Leu        | Val<br>100 | Pro        | Thr        | Lys        | Glu        | Leu<br>105 | Ala        | Arg        | Gln        | Ala        | Gln<br>110 | Ser        | Met        |
| Ile        | Gln        | Gln<br>115 | Leu        | Ala        | Thr        | Tyr        | Cys<br>120 | Ala        | Arg        | Asp        | Val        | Arg<br>125 | Val        | Ala        | Asn        |
| Val        | Ser<br>130 | Ala        | Ala        | Glu        | Asp        | Ser<br>135 | Val        | Ser        | Gln        | Arg        | Ala<br>140 | Val        | Leu        | Met        | Glu        |
| Lys<br>145 | Pro        | Asp        | Val        | Val        | Val<br>150 | Gly        | Thr        | Pro        | Ser        | Arg<br>155 | Ile        | Leu        | Ser        | His        | Leu<br>160 |
| Gln        | Gln        | Asp        | Ser        | Leu<br>165 | Lys        | Leu        | Arg        | Asp        | Ser<br>170 | Leu        | Glu        | Leu        | Leu        | Val<br>175 | Val        |
| Asp        | Glu        | Ala        | Asp<br>180 | Leu        | Leu        | Phe        | Ser        | Phe<br>185 | Gly        | Phe        | Glu        | Glu        | Glu<br>190 | Leu        | Lys        |

002221-56EE960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Leu | Trp | Glu | Gly | Arg | Val | Thr | Cys | Pro | Gly | Phe | Thr | Arg | Leu |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Phe | Ser | Cys | Gln | Leu | Leu | Leu | Thr | Arg | Thr | Tyr | Lys | His | Ser | Arg | Ser |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |

<210> 325  
 <211> 115  
 <212> PRT  
 <213> homo sapiens

<400> 325

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Phe | Phe | Phe | Phe | Phe | Phe | Phe | Phe | Gly | Ala | Ala | Lys | Ile | Phe | Ile |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | Leu | Ser | Arg | Gly | Lys | Met | Pro | Ala | Trp | Lys | Cys | Gln | Gly | Ala | Lys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gly | Pro | Ser | Thr | Ala | Gly | Pro | Arg | Thr | Val | Cys | Ser | Gly | Cys | Ala | Val |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Thr | Arg | Ala | Ser | Pro | Val | His | Glu | Gly | Cys | Lys | Pro | Val | Leu | His |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Asn | Val | Leu | Ser | Ser | Arg | Glu | Ala | Gln | Gln | Pro | Gln | Glu | Gly | Leu | Ala |
|     | 65  |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Val | Gly | Leu | Asn | Phe | Phe | Pro | Leu | Cys | Leu | Lys | Leu | Arg | Ser | Gly | Phe |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Trp | Asp | Phe | Ala | Leu | Leu | Ala | Phe | Leu | Gln | Glu | Glu | Asp | Ser | Phe | Phe |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Arg | Phe | Leu |     |     |     |     |     |     |     |     |     |     |     |     |     |
|     |     | 115 |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 326  
 <211> 66  
 <212> PRT  
 <213> homo sapiens

<400> 326

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Gln | Cys | Gln | Arg | Ser | Leu | Cys | Gly | Ala | Lys | Cys | Val | Thr | Trp |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ala | Val | Glu | Thr | Arg | His | Leu | Leu | Ser | Pro | Ala | Leu | Met | Thr | Leu | Arg |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Lys | Glu | Asp | Val | Ile | Gln | Gly | Lys | Phe | Leu | Ile | Pro | Lys | Leu | Pro | Val |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| His | Val | Asn | Arg | Thr | Ser | Phe | Tyr | Ser | Ser | Arg | Cys | Thr | Gly | Ser | Leu |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ala | Pro |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|     | 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 327  
 <211> 90  
 <212> PRT

00673395-12700

<213> homo sapiens

<400> 327

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Phe<br>1  | Arg       | Ser       | Cys       | Leu<br>5  | Phe       | Met       | Leu       | Thr       | Gly<br>10 | Leu       | Leu       | Phe       | Ile       | Arg<br>15 | Gln       |
| Asp       | Val       | Leu       | Val<br>20 | Pro       | Trp       | His       | Leu       | Lys<br>25 | Gly       | Asn       | Pro       | Asp       | Lys<br>30 | Gly       | Lys       |
| Pro       | Val       | Glu<br>35 | Pro       | Phe       | Gly       | Pro       | Ile<br>40 | Gly       | Ser       | Gln       | Asp       | Pro<br>45 | Ser       | Pro       | Val       |
| Phe       | His<br>50 | Arg       | Tyr       | Tyr       | His       | Val<br>55 | Phe       | Arg       | Glu       | Gly       | Glu<br>60 | Leu       | Glu       | Gly       | Ala       |
| Cys<br>65 | Arg       | Thr       | Val       | Ser       | Asp<br>70 | Val       | Arg       | Ile       | Leu       | Gln<br>75 | Ser       | Tyr       | Tyr       | Asp       | Gln<br>80 |
| Gly       | Asn       | Trp       | Cys       | Val<br>85 | Ile       | Leu       | Gln       | Lys       | Ala<br>90 |           |           |           |           |           |           |

<210> 328

<211> 83

<212> PRT

<213> homo sapiens

<400> 328

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ser<br>1  | Gly       | Leu       | Leu       | Lys<br>5 | Asn       | His       | Thr       | Pro       | Val<br>10 | Ser       | Leu       | Ile       | Val       | Val<br>15 | Ala       |
| Leu       | Gln       | Asn       | Ser<br>20 | Asp      | Ile       | Thr       | His       | Ser<br>25 | Pro       | Ala       | Gly       | Thr       | Phe<br>30 | Gln       | Phe       |
| Ser       | Leu       | Thr<br>35 | Glu       | His      | Met       | Val       | Val<br>40 | Thr       | Met       | Lys       | His       | Arg<br>45 | Thr       | Trp       | Val       |
| Leu       | Gly<br>50 | Ser       | Tyr       | Gly      | Thr       | Lys<br>55 | Trp       | Leu       | Asn       | Arg       | Phe<br>60 | Ala       | Phe       | Ile       | Arg       |
| Ile<br>65 | Ser       | Leu       | Lys       | Val      | Pro<br>70 | Gly       | Asn       | Gln       | Tyr       | Ile<br>75 | Leu       | Thr       | Asn       | Lys       | Lys<br>80 |
| Lys       | Ser       | Cys       |           |          |           |           |           |           |           |           |           |           |           |           |           |

<210> 329

<211> 185

<212> PRT

<213> homo sapiens

<400> 329

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Glu<br>1 | Arg | Arg       | Ser       | Lys<br>5 | Ser | Arg | Glu       | Glu       | Arg<br>10 | Glu | Lys | Glu       | Arg       | Glu<br>15 | Arg |
| Glu      | Arg | Glu       | Glu<br>20 | Arg      | Glu | Arg | Lys       | Arg<br>25 | Arg       | Arg | Glu | Glu       | Glu<br>30 | Glu       | Arg |
| Glu      | Lys | Glu<br>35 | Arg       | Ala      | Arg | Asp | Arg<br>40 | Glu       | Arg       | Arg | Lys | Arg<br>45 | Ser       | Arg       | Ser |
| Arg      | Ser | Arg       | His       | Ser      | Ser | Arg | Thr       | Ser       | Asp       | Arg | Arg | Cys       | Ser       | Arg       | Ser |

00673305-122700

004221" 5552960

| 50         |            |            |            |            | 55         |            |            |            |            | 60         |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Arg<br>65  | Asp        | His        | Lys        | Arg        | Ser<br>70  | Arg        | Ser        | Arg        | Glu        | Arg<br>75  | Arg        | Arg        | Ser        | Arg        | Ser<br>80  |
| Arg        | Asp        | Arg        | Arg        | Arg<br>85  | Ser        | Arg        | Ser        | His        | Asp<br>90  | Arg        | Ser        | Glu        | Arg        | Lys<br>95  | His        |
| Arg        | Ser        | Arg        | Ser<br>100 | Arg        | Asp        | Arg        | Arg        | Arg<br>105 | Ser        | Lys        | Ser        | Arg        | Asp<br>110 | Arg        | Lys        |
| Ser        | Tyr        | Lys<br>115 | His        | Arg        | Ser        | Lys        | Ser<br>120 | Arg        | Asp        | Arg        | Glu        | Gln<br>125 | Asp        | Arg        | Lys        |
| Ser        | Lys<br>130 | Glu        | Lys        | Glu        | Lys        | Arg<br>135 | Gly        | Ser        | Asp        | Asp        | Lys<br>140 | Lys        | Ser        | Ser        | Val        |
| Lys<br>145 | Ser        | Gly        | Ser        | Arg        | Glu<br>150 | Lys        | Gln        | Ser        | Glu        | Asp<br>155 | Thr        | Asn        | Thr        | Glu        | Ser<br>160 |
| Lys        | Glu        | Ser        | Asp        | Thr<br>165 | Lys        | Asn        | Glu        | Val        | Asn<br>170 | Gly        | Thr        | Ser        | Glu        | Asp<br>175 | Ile        |
| Lys        | Ser        | Glu        | Gly<br>180 | Asp        | Thr        | Gln        | Ser        | Asn<br>185 |            |            |            |            |            |            |            |

<210> 330  
 <211> 178  
 <212> PRT  
 <213> homo sapiens  
 <400> 330

|            |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|
| Tyr<br>1   | His        | Phe        | Pro        | Ser<br>5  | Ile        | Gln        | Cys        | Leu        | Cys<br>10 | Leu        | His        | Ser        | Ala        | Phe<br>15 | Leu        |
| Asp        | Tyr        | Arg        | Thr<br>20  | Ser       | His        | Tyr        | Phe        | Phe<br>25  | Tyr       | His        | Gln        | Ile        | Pro<br>30  | Ser       | Phe        |
| Leu        | Ser        | Pro<br>35  | Trp        | Ile       | Phe        | Tyr        | Leu<br>40  | Val        | Leu       | Cys        | Pro        | Asp<br>45  | Phe        | Cys       | Ser        |
| Cys        | Ala<br>50  | Tyr        | Met        | Thr       | Phe        | Asp<br>55  | Pro        | Gly        | Phe       | Leu        | Ile<br>60  | Phe        | Phe        | Asp       | Pro        |
| Asp<br>65  | Phe        | Glu        | Ile        | Cys       | Val<br>70  | Phe        | Phe        | Leu        | Ile       | Asp<br>75  | His        | Gly        | Phe        | Cys       | Phe<br>80  |
| Phe        | Val        | Asp        | Leu        | Tyr<br>85 | Phe        | Cys        | Ser        | Ala        | Phe<br>90 | Phe        | Leu        | Tyr        | Phe        | Val<br>95 | Thr        |
| Phe        | Cys        | Gly        | Pro<br>100 | Glu       | Thr        | Cys        | Cys        | Ile<br>105 | Phe       | Cys        | Leu        | Met        | Phe<br>110 | Gly       | Leu        |
| Ser        | Val        | Tyr<br>115 | Phe        | Val       | Asn        | Asp        | Phe<br>120 | Ser        | Phe       | Phe        | Phe        | Leu<br>125 | Cys        | His       | Glu        |
| Pro        | Phe<br>130 | Leu        | Phe        | Leu       | Phe        | Leu<br>135 | Pro        | Leu        | Pro       | Phe        | Val<br>140 | Phe        | Ser        | Phe       | Leu        |
| Phe<br>145 | Leu        | Pro        | Phe        | Leu       | Ser<br>150 | Pro        | Val        | Leu        | Ser       | Leu<br>155 | Ser        | Leu        | Leu        | Cys       | Ser<br>160 |

Cys Phe Ser Phe Leu Arg Arg Ser Ser Arg Ile Arg Leu Phe Gly Ser  
165 170 175

Ser Pro

<210> 331

<211> 182

<212> PRT

<213> homo sapiens

<400> 331

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ser | Pro | Ser | Asp | Leu | Met | Ser | Ser | Leu | Val | Pro | Leu | Thr | Ser | Phe |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | Val | Ser | Leu | Ser | Phe | Asp | Ser | Val | Phe | Val | Ser | Ser | Leu | Cys | Phe |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ser | Arg | Leu | Pro | Asp | Phe | Thr | Leu | Leu | Phe | Leu | Ser | Ser | Asp | Pro | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Phe | Ser | Phe | Ser | Leu | Asp | Phe | Leu | Ser | Cys | Ser | Leu | Ser | Arg | Leu | Leu |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Leu | Leu | Cys | Leu | Tyr | Asp | Phe | Arg | Ser | Arg | Leu | Phe | Asp | Leu | Leu | Arg |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Ser | Arg | Leu | Arg | Asp | Leu | Cys | Phe | Leu | Ser | Asp | Arg | Ser | Trp | Leu | Leu |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Leu | Leu | Arg | Arg | Ser | Leu | Leu | Leu | Leu | Arg | Leu | Leu | Ser | Leu | Leu | Arg |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Asp | Leu | Leu | Trp | Ser | Arg | Asp | Leu | Leu | His | Leu | Leu | Ser | Asp | Val | Arg |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Leu | Glu | Cys | Leu | Leu | Arg | Glu | Arg | Leu | Leu | Phe | Leu | Leu | Ser | Leu | Ser |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Arg | Ala | Leu | Ser | Phe | Ser | Leu | Ser | Ser | Ser | Ser | Leu | Arg | Leu | Phe | Leu |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Ser | Leu | Ser | Ser | Leu | Ser | Leu | Ser | Arg | Ser | Phe | Ser | Leu | Ser | Ser | Leu |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Leu | Leu | Leu | Leu | Leu | Ser |     |     |     |     |     |     |     |     |     |     |
|     |     |     | 180 |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 332

<211> 88

<212> PRT

<213> homo sapiens

<400> 332

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Phe | Gly | Met | Gln | Leu | Val | Ile | Leu | Arg | Val | Thr | Ile | Phe | Leu | Pro |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Trp | Cys | Phe | Ala | Val | Pro | Val | Pro | Pro | Ala | Ala | Asp | His | Lys | Gly | Trp |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Asp | Phe | Val | Glu | Gly | Tyr | Phe | His | Gln | Phe | Phe | Leu | Thr | Glu | Lys | Glu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |

00673395-122700





|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Asn | Gly | Glu | Thr | Pro | Gly | Gln | Glu | Asp | Ser | Asn | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |

<210> 336  
 <211> 63  
 <212> PRT  
 <213> homo sapiens

<400> 336

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Asp | Thr | Ile | Gln | Lys | Arg | Asn | Ser | Gln | Phe | Glu | Thr | Val | Thr |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Pro | Pro | Ala | Pro | Asn | Cys | Gly | Asp | Glu | Glu | Arg | Lys | Gln | Trp | Leu | Trp |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Phe | Leu | Ser | Glu | Gly | Arg | Leu | Arg | Thr | Glu | Arg | Ser | Asn | His | Gln | Gly |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| His | Arg | Phe | Trp | Lys | Ser | Ser | Arg | Gly | Gly | Trp | Leu | Glu | Glu | Gln |     |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

<210> 337  
 <211> 65  
 <212> PRT  
 <213> homo sapiens

<400> 337

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gly | Trp | Arg | Ser | Asp | Phe | Thr | Val | Gly | Gly | Arg | Gln | Arg | Asp | Gly |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Gln | His | Val | Gln | Thr | Gly | Ser | Phe | Phe | Ser | Ile | Ser | Leu | Leu | Ser | Lys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ser | Arg | Thr | Ala | Gln | Trp | Leu | Cys | Gln | Gly | Gly | Ser | Ser | Ser | Tyr | Ser |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| His | Phe | Ser | Gly | Ser | Leu | Lys | Ser | Thr | Arg | Tyr | Tyr | Arg | Gly | Ser | Arg |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

Ser  
65

<210> 338  
 <211> 249  
 <212> PRT  
 <213> homo sapiens

<400> 338

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Cys | Gly | Asp | Val | Glu | Gln | Lys | Ile | Gln | Phe | Lys | Arg | Glu | Thr | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser | Leu | Lys | Leu | Leu | Pro | His | Gln | Pro | Arg | Ile | Val | Glu | Met | Lys | Lys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gly | Ser | Asn | Gly | Tyr | Gly | Phe | Tyr | Leu | Arg | Ala | Gly | Ser | Glu | Gln | Lys |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Gly | Gln | Ile | Ile | Lys | Asp | Ile | Asp | Ser | Gly | Ser | Pro | Ala | Glu | Glu | Ala |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

00/222" 5662960

002221"5662960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gly<br>65  | Leu        | Lys        | Asn        | Asn        | Asp<br>70  | Leu        | Val        | Val        | Ala        | Val<br>75  | Asn        | Gly        | Glu        | Ser        | Val<br>80  |
| Glu        | Thr        | Leu        | Asp        | His<br>85  | Asp        | Ser        | Val        | Val        | Glu<br>90  | Met        | Ile        | Arg        | Lys        | Gly<br>95  | Gly        |
| Asp        | Gln        | Thr        | Ser<br>100 | Leu        | Leu        | Val        | Val        | Asp<br>105 | Lys        | Glu        | Thr        | Asp        | Asn<br>110 | Met        | Tyr        |
| Arg        | Leu        | Ala<br>115 | His        | Phe        | Ser        | Pro        | Phe<br>120 | Leu        | Tyr        | Tyr        | Gln        | Ser<br>125 | Gln        | Glu        | Leu        |
| Pro        | Asn<br>130 | Gly        | Ser        | Val        | Lys        | Glu<br>135 | Ala        | Pro        | Ala        | Pro        | Thr<br>140 | Pro        | Thr        | Ser        | Leu        |
| Glu<br>145 | Val        | Ser        | Ser        | Pro        | Pro<br>150 | Asp        | Thr        | Thr        | Glu        | Glu<br>155 | Val        | Asp        | His        | Lys        | Pro<br>160 |
| Lys        | Leu        | Cys        | Arg        | Leu<br>165 | Ala        | Lys        | Gly        | Glu        | Asn<br>170 | Gly        | Tyr        | Gly        | Phe        | His<br>175 | Leu        |
| Asn        | Ala        | Ile        | Arg<br>180 | Gly        | Leu        | Pro        | Gly        | Ser<br>185 | Phe        | Ile        | Lys        | Glu        | Val<br>190 | Gln        | Lys        |
| Gly        | Gly        | Pro<br>195 | Ala        | Asp        | Leu        | Ala        | Gly<br>200 | Leu        | Glu        | Asp        | Glu        | Asp<br>205 | Val        | Ile        | Ile        |
| Glu        | Val<br>210 | Asn        | Gly        | Val        | Asn        | Val<br>215 | Leu        | Asp        | Glu        | Pro        | Tyr<br>220 | Glu        | Lys        | Val        | Val        |
| Asp<br>225 | Arg        | Ile        | Gln        | Ser        | Ser<br>230 | Gly        | Lys        | Asn        | Val        | Thr<br>235 | Leu        | Leu        | Val        | Cys        | Gly<br>240 |
| Lys        | Lys        | Ala        | Tyr        | Asp<br>245 | Tyr        | Phe        | Gln        | Ala        |            |            |            |            |            |            |            |

<210> 339  
 <211> 67  
 <212> PRT  
 <213> homo sapiens

<400> 339

|           |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Ile<br>1  | Thr       | Gly       | Val       | Gln<br>5 | Pro | Glu       | His       | Ile       | Gln<br>10 | Tyr | Leu       | Lys       | Asn       | Tyr<br>15 | Phe |
| His       | Leu       | Trp       | Thr<br>20 | Arg      | Gln | Leu       | Ala       | His<br>25 | Ile       | Tyr | His       | Tyr       | Tyr<br>30 | Ile       | His |
| Gly       | Pro       | Lys<br>35 | Gly       | Asn      | Glu | Ile       | Arg<br>40 | Thr       | Ser       | Lys | Glu       | Val<br>45 | Glu       | Pro       | Phe |
| Asn       | Asn<br>50 | Ile       | Asp       | Ile      | Glu | Ile<br>55 | Ser       | Met       | Phe       | Glu | Lys<br>60 | Gly       | Lys       | Val       | Pro |
| Lys<br>65 | Ile       | Val       |           |          |     |           |           |           |           |     |           |           |           |           |     |

<210> 340  
 <211> 44  
 <212> PRT  
 <213> homo sapiens

09673395-122700

<400> 340

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ile | Phe | Ile | Thr | Thr | Ile | Phe | Met | Ala | Gln | Lys | Glu | Met | Lys | Tyr |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Glu | His | Gln | Lys | Lys | Leu | Asn | Leu | Ser | Thr | Ile | Leu | Ile | Leu | Lys | Phe |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | Cys | Leu | Lys | Lys | Gly | Arg | Tyr | Leu | Arg | Leu | Ser |     |     |     |     |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     |     |     |     |     |

<210> 341

<211> 46

<212> PRT

<213> homo sapiens

<400> 341

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Val | Gln | Leu | Leu | Leu | Met | Phe | Val | Phe | His | Phe | Leu | Leu | Gly | His |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Glu | Tyr | Ser | Ser | Asp | Lys | Tyr | Ala | Leu | Thr | Val | Val | Ser | Lys | Gly | Gly |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Asn | Asn | Phe | Ser | Ser | Thr | Val | Cys | Val | Leu | Val | Val | Pro | Leu |     |     |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |

<210> 342

<211> 237

<212> PRT

<213> homo sapiens

<400> 342

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Trp | Arg | Arg | Arg | Leu | Arg | His | Gly | Arg | Gly | Ser | Ala | Glu | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Val | Gly | Pro | Thr | Ala | Met | Ala | Glu | Leu | Leu | Gln | Glu | Glu | Leu | Ser | Val |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | Ala | Ala | Ile | Phe | Cys | Arg | Pro | His | Glu | Trp | Glu | Val | Leu | Ser | Arg |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Glu | Thr | Asp | Gly | Thr | Val | Phe | Arg | Ile | His | Thr | Lys | Ala | Glu | Gly |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Phe | Met | Asp | Ala | Asp | Ile | Pro | Leu | Glu | Leu | Val | Phe | His | Leu | Pro | Val |
|     | 65  |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Asn | Tyr | Pro | Ser | Cys | Leu | Pro | Gly | Ile | Ser | Ile | Asn | Ser | Glu | Gln | Leu |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Thr | Arg | Ala | Gln | Cys | Val | Thr | Val | Lys | Glu | Lys | Leu | Leu | Glu | Gln | Ala |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Glu | Ser | Leu | Leu | Ser | Glu | Pro | Met | Val | His | Glu | Leu | Val | Leu | Trp | Ile |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Gln | Gln | Asn | Leu | Arg | His | Ile | Leu | Ser | Gln | Pro | Glu | Thr | Gly | Ser | Gly |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Ser | Glu | Lys | Cys | Thr | Phe | Ser | Thr | Ser | Thr | Thr | Met | Asp | Asp | Gly | Leu |

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |     |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----|
| 145        |            |            |            |            | 150        |            |            |            |            | 155        |            |            |            |            | 160 |
| Trp        | Ile        | Thr        | Leu        | Leu<br>165 | His        | Leu        | Asp        | His        | Met<br>170 | Arg        | Ala        | Lys        | Thr        | Lys<br>175 | Tyr |
| Val        | Lys        | Ile        | Val<br>180 | Glu        | Lys        | Trp        | Ala        | Ser<br>185 | Asp        | Leu        | Arg        | Leu        | Thr<br>190 | Gly        | Arg |
| Leu        | Met        | Phe<br>195 | Met        | Gly        | Lys        | Ile        | Ile<br>200 | Leu        | Asp        | Phe        | Thr        | Thr<br>205 | Gly        | Arg        | Gln |
| Lys        | Gln<br>210 | Pro        | Gln        | Gly        | Val        | Leu<br>215 | Asp        | Ser        | Ser        | Glu        | Asn<br>220 | Leu        | Gln        | Ser        | Arg |
| Cys<br>225 | Gly        | Leu        | Lys        | Trp        | Lys<br>230 | Glu        | Met        | Gln        | Arg        | Glu<br>235 | Asn        | Asp        |            |            |     |

<210> 343  
 <211> 89  
 <212> PRT  
 <213> homo sapiens

<400> 343

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Tyr<br>1  | Leu       | Ile       | Leu       | Leu<br>5  | Gln       | Gly       | Asp       | Arg       | Asn<br>10 | Asn       | Leu       | Lys       | Val       | Tyr<br>15 | Leu       |
| Ile       | Leu       | Gln       | Lys<br>20 | Thr       | Ser       | Lys       | Val       | Asp<br>25 | Val       | Asp       | Ser       | Ser       | Gly<br>30 | Lys       | Lys       |
| Cys       | Lys       | Glu<br>35 | Lys       | Met       | Ile       | Ser       | Val<br>40 | Leu       | Phe       | Glu       | Thr       | Lys<br>45 | Val       | Gln       | Thr       |
| Glu       | His<br>50 | Lys       | Arg       | Phe       | Leu       | Ala<br>55 | Phe       | Glu       | Val       | Lys       | Glu<br>60 | Tyr       | Ser       | Ala       | Leu       |
| Asp<br>65 | Glu       | Leu       | Gln       | Lys       | Glu<br>70 | Phe       | Glu       | Thr       | Ala       | Gly<br>75 | Leu       | Lys       | Lys       | Leu       | Phe<br>80 |
| Ser       | Glu       | Phe       | Val       | Leu<br>85 | Ala       | Leu       | Val       | Lys       |           |           |           |           |           |           |           |

<210> 344  
 <211> 95  
 <212> PRT  
 <213> homo sapiens

<400> 344

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pro<br>1  | Leu       | Pro       | Lys       | Ser<br>5 | Asn       | Ala       | Lys       | Thr       | Thr<br>10 | Lys       | Asn       | Thr       | Ala       | Ile<br>15 | Leu       |
| Leu       | Lys       | Asp       | Ser<br>20 | Cys      | Leu       | Pro       | Phe       | His<br>25 | Phe       | Thr       | Arg       | Ala       | Ser<br>30 | Thr       | Asn       |
| Ser       | Glu       | Lys<br>35 | Ser       | Phe      | Leu       | Ser       | Pro<br>40 | Ala       | Val       | Ser       | Asn       | Ser<br>45 | Phe       | Cys       | Asn       |
| Ser       | Ser<br>50 | Asn       | Ala       | Glu      | Tyr       | Ser<br>55 | Leu       | Thr       | Ser       | Asn       | Ala<br>60 | Arg       | Asn       | Leu       | Leu       |
| Cys<br>65 | Ser       | Val       | Cys       | Thr      | Phe<br>70 | Val       | Ser       | Asn       | Ser       | Thr<br>75 | Leu       | Ile       | Ile       | Phe       | Ser<br>80 |

00673395-122700

09673395-12700

Leu His Phe Phe Pro 85 Leu Glu Ser Thr Ser 90 Thr Leu Glu Val Phe 95

<210> 345  
<211> 72  
<212> PRT  
<213> homo sapiens

<400> 345

|           |           |           |           |          |           |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Arg<br>1  | Ala       | Gly       | Leu       | Phe<br>5 | Pro       | Gly       | Arg       | Arg       | Val<br>10 | Gly | Leu       | Glu       | Ala       | Glu<br>15 | Asn |
| Gly       | Pro       | Cys       | Cys<br>20 | His      | Gln       | His       | Gly       | Asp<br>25 | Phe       | Val | Pro       | Cys       | Pro<br>30 | Val       | Leu |
| Ser       | Ala       | Arg<br>35 | Met       | Ser      | Gln       | Pro       | Glu<br>40 | Ala       | Glu       | Glu | Ala       | Ala<br>45 | Leu       | Val       | Ala |
| His       | Ala<br>50 | Val       | Gly       | His      | Asp       | Cys<br>55 | Val       | Cys       | Ser       | Gly | Gly<br>60 | Gly       | Val       | Leu       | Leu |
| Pro<br>65 | His       | His       | Arg       | Arg      | Asn<br>70 | Asn       | Leu       |           |           |     |           |           |           |           |     |

<210> 346  
<211> 171  
<212> PRT  
<213> homo sapiens

<400> 346

|            |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|
| Gly<br>1   | Arg        | Ala        | Cys        | Phe<br>5  | Arg        | Gly        | Gly        | Ala        | Trp<br>10 | Gly        | Leu        | Arg        | Pro        | Arg<br>15 | Thr        |
| Ala        | Leu        | Ala        | Ala<br>20  | Thr       | Asn        | Met        | Glu        | Thr<br>25  | Leu       | Tyr        | Arg        | Val        | Pro<br>30  | Phe       | Leu        |
| Val        | Leu        | Glu<br>35  | Cys        | Pro       | Asn        | Leu        | Lys<br>40  | Leu        | Lys       | Lys        | Pro        | Pro<br>45  | Trp        | Leu       | His        |
| Met        | Pro<br>50  | Ser        | Ala        | Met       | Thr        | Val<br>55  | Tyr        | Ala        | Leu       | Val        | Val<br>60  | Val        | Ser        | Tyr       | Phe        |
| Leu<br>65  | Ile        | Thr        | Gly        | Gly       | Ile<br>70  | Ile        | Tyr        | Asp        | Val       | Ile<br>75  | Val        | Glu        | Pro        | Pro       | Ser<br>80  |
| Val        | Gly        | Ser        | Met        | Thr<br>85 | Asp        | Glu        | His        | Gly        | His<br>90 | Gln        | Arg        | Pro        | Val        | Ala<br>95 | Phe        |
| Leu        | Ala        | Tyr        | Arg<br>100 | Val       | Asn        | Gly        | Gln        | Tyr<br>105 | Ile       | Met        | Glu        | Gly        | Leu<br>110 | Ala       | Ser        |
| Ser        | Phe        | Leu<br>115 | Phe        | Thr       | Met        | Gly        | Gly<br>120 | Leu        | Gly       | Phe        | Ile        | Ile<br>125 | Leu        | Asp       | Arg        |
| Ser        | Asn<br>130 | Ala        | Pro        | Asn       | Ile        | Pro<br>135 | Lys        | Leu        | Asn       | Arg        | Phe<br>140 | Leu        | Leu        | Leu       | Phe        |
| Ile<br>145 | Gly        | Phe        | Val        | Cys       | Val<br>150 | Leu        | Leu        | Ser        | Phe       | Phe<br>155 | Met        | Ala        | Arg        | Val       | Phe<br>160 |

Met Arg Met Lys Leu Pro Gly Tyr Leu Met Gly  
165 170

<210> 347  
<211> 82  
<212> PRT  
<213> homo sapiens

<400> 347

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Glu<br>1  | Ala       | Gly       | Cys       | Lys<br>5 | Ser       | Phe       | His       | Asn       | Ile<br>10 | Leu       | Ser       | Ile       | Tyr       | Ser<br>15 | Val       |
| Gly       | Gln       | Glu       | Ser<br>20 | Tyr      | Trp       | Pro       | Leu       | Met<br>25 | Pro       | Met       | Phe       | Ile       | Ser<br>30 | His       | Arg       |
| Thr       | Asp       | Thr<br>35 | Trp       | Arg      | Phe       | Asn       | Asn<br>40 | Asn       | Ile       | Ile       | Asn       | Tyr<br>45 | Ser       | Ser       | Gly       |
| Asp       | Glu<br>50 | Glu       | Val       | Arg      | His       | His<br>55 | His       | Gln       | Ser       | Ile       | His<br>60 | Ser       | His       | Gly       | Arg       |
| Arg<br>65 | His       | Val       | Gln       | Pro      | Gly<br>70 | Arg       | Leu       | Leu       | Gln       | Leu<br>75 | Gln       | Val       | Gly       | Thr       | Phe<br>80 |
| Glu       | His       |           |           |          |           |           |           |           |           |           |           |           |           |           |           |

<210> 348  
<211> 103  
<212> PRT  
<213> homo sapiens

<400> 348

|           |           |           |            |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| His<br>1  | Lys       | Val       | Ile        | Val<br>5  | Val       | Trp       | Asn       | Asn       | Ile<br>10 | Gly       | Glu       | Lys       | Ala       | Pro<br>15 | Asp       |
| Glu       | Leu       | Trp       | Asn<br>20  | Ser       | Leu       | Gly       | Pro       | His<br>25 | Pro       | Ile       | Pro       | Val       | Ile<br>30 | Phe       | Lys       |
| Gln       | Gln       | Thr<br>35 | Ala        | Asn       | Arg       | Met       | Arg<br>40 | Asn       | Arg       | Leu       | Gln       | Val<br>45 | Phe       | Pro       | Glu       |
| Leu       | Glu<br>50 | Thr       | Asn        | Ala       | Val       | Leu<br>55 | Met       | Val       | Asp       | Asp       | Asp<br>60 | Thr       | Leu       | Ile       | Ser       |
| Thr<br>65 | Pro       | Asp       | Leu        | Val       | Phe<br>70 | Ala       | Phe       | Ser       | Val       | Trp<br>75 | Gln       | Gln       | Phe       | Pro       | Asp<br>80 |
| Gln       | Ile       | Val       | Gly        | Ile<br>85 | Cys       | Phe       | Leu       | Glu       | Ser<br>90 | Thr       | Ser       | Phe       | Thr       | Phe<br>95 | Ile       |
| Gln       | Gly       | Ile       | Tyr<br>100 | Ser       | Tyr       | Trp       |           |           |           |           |           |           |           |           |           |

<210> 349  
<211> 50  
<212> PRT  
<213> homo sapiens

<400> 349

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ser | Lys | Asn | Lys | Val | Trp | Gly | Ala | Asp | Glu | Cys | Val | Ile | Ile | Tyr |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

00673395.122700





002221"56EE2960

| 1                  |           |            | 5          |           |           |           | 10         |            |           |           | 15        |            |            |           |           |
|--------------------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Gln                | Thr       | Phe        | Cys<br>20  | Ala       | Cys       | Cys       | Ser        | Pro<br>25  | Lys       | Ala       | Trp       | Ser        | Ser<br>30  | Gln       | Ser       |
| Pro                | Glu       | Phe<br>35  | Trp        | Cys       | Val       | Leu       | Pro<br>40  | Pro        | Pro       | Gly       | Tyr       | Thr<br>45  | Glu        | Arg       | Arg       |
| Gln                | Glu<br>50 | Ser        | Gly        | Val       | Pro       | Glu<br>55 | Ala        | Tyr        | Thr       | Cys       | Gly<br>60 | Tyr        | Pro        | Ser       | Asn       |
| Lys<br>65          | Arg       | His        | Pro        | Val       | Leu<br>70 | Arg       |            |            |           |           |           |            |            |           |           |
| <210> 353          |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
| <211> 60           |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
| <212> PRT          |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
| <213> homo sapiens |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
| <400> 353          |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
| Ser<br>1           | Gly       | Gln        | Cys        | Gly<br>5  | Met       | Gln       | Leu        | Gly        | Pro<br>10 | Asp       | Gln       | Pro        | Ser        | Ser<br>15 | Glu       |
| Gln                | Met       | Ala        | Val<br>20  | Val       | Pro       | Ile       | Ser        | Thr<br>25  | Lys       | Pro       | Gln       | Arg        | Ala<br>30  | Arg       | Lys       |
| Asn                | Thr       | Ser<br>35  | Gln        | Pro       | Cys       | Ser       | Leu<br>40  | Ser        | Glu       | His       | Arg       | Met<br>45  | Pro        | Leu       | Val       |
| Ala                | Gly<br>50 | Val        | Ala        | Thr       | Cys       | Ile<br>55 | Cys        | Phe        | Trp       | Asn       | Ser<br>60 |            |            |           |           |
| <210> 354          |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
| <211> 225          |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
| <212> PRT          |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
| <213> homo sapiens |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
| <400> 354          |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
| Gly<br>1           | Leu       | Pro        | Ala        | Arg<br>5  | Arg       | Pro       | Gln        | Cys        | Phe<br>10 | Leu       | Arg       | Ala        | Glu        | Met<br>15 | Ala       |
| Asn                | Ser       | Gly        | Leu<br>20  | Gln       | Leu       | Leu       | Gly        | Phe<br>25  | Ser       | Met       | Ala       | Leu        | Leu<br>30  | Gly       | Trp       |
| Val                | Gly       | Leu<br>35  | Val        | Ala       | Cys       | Thr       | Ala<br>40  | Ile        | Pro       | Gln       | Trp       | Gln<br>45  | Met        | Ser       | Ser       |
| Tyr                | Ala<br>50 | Gly        | Asp        | Asn       | Ile       | Ile<br>55 | Thr        | Ala        | Gln       | Ala       | Met<br>60 | Tyr        | Lys        | Gly       | Leu       |
| Trp<br>65          | Met       | Asp        | Cys        | Val       | Thr<br>70 | Gln       | Ser        | Thr        | Gly       | Met<br>75 | Met       | Ser        | Cys        | Lys       | Met<br>80 |
| Tyr                | Asp       | Ser        | Val        | Leu<br>85 | Ala       | Leu       | Ser        | Ala        | Ala<br>90 | Leu       | Gln       | Ala        | Thr        | Arg<br>95 | Ala       |
| Leu                | Met       | Val        | Val<br>100 | Ser       | Leu       | Val       | Leu        | Gly<br>105 | Phe       | Leu       | Ala       | Met        | Phe<br>110 | Val       | Ala       |
| Thr                | Met       | Gly<br>115 | Met        | Lys       | Cys       | Thr       | Arg<br>120 | Cys        | Gly       | Gly       | Asp       | Asp<br>125 | Lys        | Val       | Lys       |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ala | Arg | Ile | Ala | Met | Gly | Gly | Gly | Ile | Ile | Phe | Ile | Val | Ala | Gly |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Leu | Ala | Ala | Leu | Val | Ala | Cys | Ser | Trp | Tyr | Gly | His | Gln | Ile | Val | Thr |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Asp | Phe | Tyr | Asn | Pro | Leu | Ile | Pro | Thr | Asn | Ile | Lys | Tyr | Glu | Phe | Gly |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Pro | Ala | Ile | Phe | Ile | Gly | Trp | Ala | Gly | Ser | Ala | Leu | Val | Ile | Leu | Gly |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Gly | Ala | Leu | Leu | Ser | Cys | Ser | Cys | Pro | Gly | Asn | Glu | Ser | Lys | Ala | Gly |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Tyr | Arg | Ala | Pro | Arg | Ser | Tyr | Pro | Lys | Ser | Asn | Ser | Ser | Lys | Glu | Tyr |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Val |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 225 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 355  
 <211> 111  
 <212> PRT  
 <213> homo sapiens

<400> 355

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | His | His | His | Gly | Pro | Gly | His | Val | Gln | Gly | Ala | Val | Asp | Gly | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg | His | Ala | Glu | His | Gly | Asp | Asp | Glu | Leu | Gln | Asn | Val | Arg | Leu | Gly |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ala | Arg | Pro | Val | Arg | Gly | Leu | Ala | Gly | His | Ser | Ser | Pro | Asn | Gly | Gly |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Leu | Pro | Gly | Ala | Gly | Leu | Pro | Gly | His | Val | Cys | Gly | His | Asp | Gly | His |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Glu | Val | His | Ala | Leu | Trp | Gly | Arg | Arg | Gln | Ser | Glu | Glu | Gly | Pro | Tyr |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Ser | His | Gly | Trp | Arg | His | Asn | Phe | His | Arg | Gly | Arg | Ser | Cys | Arg | Leu |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Gly | Ser | Leu | Leu | Leu | Val | Trp | Pro | Ser | Asp | Cys | His | Arg | Leu | Leu |     |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |

<210> 356  
 <211> 154  
 <212> PRT  
 <213> homo sapiens

<400> 356

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Cys | His | Pro | His | Arg | Ser | Ser | Ser | Ala | Thr | Ala | Gly | Trp | Arg | Cys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg | Pro | Pro | Asp | Pro | Pro | Ser | Pro | Ala | Gly | Pro | Trp | Arg | Ser | Pro | Ala |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |

09673395-12700

|            |            |            |            |           |            |            |            |            |           |           |            |            |            |           |           |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|
| Thr        | Ala        | Gly<br>35  | Pro        | Asn       | Trp        | Pro        | Phe<br>40  | Pro        | Pro       | Ser       | Glu        | Asn<br>45  | Thr        | Gly       | Gly       |
| Ala        | Gly<br>50  | Arg        | Gly        | Asp       | Pro        | Thr<br>55  | Val        | Lys        | Gln       | Thr       | Thr<br>60  | Leu        | Gly        | Gly       | Gln       |
| Pro<br>65  | His        | Lys        | Arg        | Lys       | Leu<br>70  | Glu        | Val        | Glu        | Phe       | Ser<br>75 | Gly        | His        | Pro        | Lys       | Arg<br>80 |
| Gln        | Lys        | Gly        | Phe        | Gly<br>85 | Pro        | Gly        | Glu        | Cys        | Lys<br>90 | Ser       | Cys        | His        | Gln        | Thr<br>95 | Thr       |
| His        | Lys        | Ser        | Thr<br>100 | Pro       | Pro        | Val        | Lys        | Arg<br>105 | Trp       | Pro       | Arg        | Gly        | Thr<br>110 | Gly       | Ser       |
| Arg        | Ile        | Arg<br>115 | Arg        | Glu       | Gly        | Gly        | Ser<br>120 | Arg        | Gln       | Asn       | Trp        | Trp<br>125 | Ser        | Pro       | Lys       |
| Ala        | Arg<br>130 | Arg        | Phe        | Pro       | Pro        | Gly<br>135 | Ala        | Leu        | Gly       | Asp       | Pro<br>140 | Leu        | Ser        | Pro       | Pro       |
| Ala<br>145 | Ser        | Arg        | Leu        | Leu       | Thr<br>150 | Gly        | Val        | Gly        | Pro       |           |            |            |            |           |           |

<210> 357  
 <211> 72  
 <212> PRT  
 <213> homo sapiens

<400> 357

|           |           |           |           |          |           |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Asn<br>1  | Leu       | Thr       | Gln       | Val<br>5 | Thr       | Phe       | Leu       | Phe       | Phe<br>10 | Cys | Pro       | Pro       | Asn       | Val<br>15 | His |
| Ala       | Ser       | Tyr       | Arg<br>20 | Leu      | His       | Phe       | Glu       | Ala<br>25 | Leu       | Met | Asn       | Ile       | Pro<br>30 | Val       | Leu |
| Val       | Leu       | Asp<br>35 | Val       | Asn      | Asp       | Asp       | Phe<br>40 | Ala       | Glu       | Glu | Val       | Thr<br>45 | Lys       | Gln       | Glu |
| Asp       | Leu<br>50 | Met       | Arg       | Glu      | Val       | Gly<br>55 | Arg       | Thr       | Leu       | Thr | Pro<br>60 | Val       | Phe       | Leu       | Val |
| Val<br>65 | Ser       | Leu       | Trp       | Leu      | Tyr<br>70 | Leu       | Leu       |           |           |     |           |           |           |           |     |

<210> 358  
 <211> 69  
 <212> PRT  
 <213> homo sapiens

<400> 358

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Ser<br>1 | Pro | Ser       | His       | Leu<br>5 | Ser | His | Glu       | Val       | Phe<br>10 | Leu | Phe | Gly       | Tyr       | Phe<br>15 | Leu |
| Ser      | Lys | Ile       | Ile<br>20 | Ile      | Asp | Ile | Gln       | His<br>25 | Gln       | His | Trp | Asn       | Val<br>30 | His       | Gln |
| Ser      | Leu | Lys<br>35 | Val       | Glu      | Pro | Ile | Arg<br>40 | Ser       | Val       | Asn | Val | Trp<br>45 | Gly       | Thr       | Glu |
| Lys      | Lys | Lys       | Cys       | Asn      | Leu | Ser | Gln       | Val       | Ser       | His | Thr | Arg       | Gln       | Val       | Leu |

09673395-122700

60

<400> 360

```
<210> 361
<211> 111
<212> PRT
<213> homo sapiens
```

<400> 361

```
<210> 362
<211> 109
<212> PRT
<213> homo sapiens
```

<400> 362

**09632**

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |  |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| Thr<br>1  | Arg       | Asn       | Gly        | Ser<br>5  | Val       | Phe       | Gly       | Cys        | Tyr<br>10 | Arg       | Pro       | His       | Arg       | Phe<br>15 | Pro       |  |
| Ala       | Gly       | Lys       | Ser<br>20  | Val       | Ser       | Leu       | Val       | Tyr<br>25  | Ser       | Arg       | Gly       | Phe       | Gln<br>30 | His       | Pro       |  |
| Pro       | Cys       | Ala<br>35 | Tyr        | His       | Leu       | Leu       | Gly<br>40 | Gln        | Gly       | Arg       | Arg       | Ser<br>45 | Val       | Ser       | Glu       |  |
| Ala       | Cys<br>50 | Arg       | Ser        | Tyr       | Val       | Thr<br>55 | Pro       | Asp        | Ser       | Asn       | Gly<br>60 | Trp       | Lys       | Arg       | Thr       |  |
| Asn<br>65 | Gly       | Gln       | Asp        | Phe       | Leu<br>70 | Leu       | Leu       | Leu        | Leu       | Lys<br>75 | Thr       | Leu       | Met       | Val       | Lys<br>80 |  |
| Arg       | Lys       | Asp       | Trp        | Gly<br>85 | Gln       | Pro       | Gly       | Ser        | Ser<br>90 | Gly       | Pro       | Thr       | Ser       | Lys<br>95 | Phe       |  |
| Pro       | Leu       | Gln       | Val<br>100 | Ile       | Leu       | Cys       | Gln       | Ala<br>105 | Leu       | Phe       | Lys       | Lys       |           |           |           |  |

<210> 363  
 <211> 381  
 <212> PRT  
 <213> homo sapiens

<400> 363

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Gly<br>1   | Pro        | Ala        | Arg        | Arg<br>5   | Pro        | Ala        | Ala        | Arg        | Leu<br>10  | Ala        | Arg        | Ala        | Gly        | Gly<br>15  | Pro        |  |
| Gln        | Ala        | Ala        | Asp<br>20  | Arg        | Ala        | Gly        | Lys        | Gln<br>25  | Ser        | Gly        | Pro        | Pro        | Ala<br>30  | Pro        | Gly        |  |
| Cys        | Ser        | Trp<br>35  | Leu        | Pro        | Ala        | Glu        | Ala<br>40  | Ala        | Gly        | Ala        | Thr        | Val<br>45  | Gly        | Gly        | Leu        |  |
| Cys        | Pro<br>50  | Arg        | Arg        | Ala        | Pro        | Ala<br>55  | Gly        | Pro        | Trp        | His        | Gln<br>60  | Gly        | Pro        | Gln        | Arg        |  |
| Pro<br>65  | Val        | Lys        | Asp        | Glu        | Pro<br>70  | Gln        | Asp        | Gly        | Glu        | Asn<br>75  | Pro        | Asn        | Pro        | Pro        | Asn<br>80  |  |
| Trp        | Ser        | Arg        | Thr        | Val<br>85  | Val        | Arg        | Asp        | Val        | Arg<br>90  | Leu        | Ile        | Ser        | Ala        | Lys<br>95  | Thr        |  |
| Gly        | Tyr        | Gly        | Val<br>100 | Glu        | Glu        | Leu        | Ile        | Ser<br>105 | Ala        | Leu        | Gln        | Arg        | Ser<br>110 | Trp        | Arg        |  |
| Tyr        | Arg        | Gly<br>115 | Asp        | Val        | Tyr        | Leu        | Val<br>120 | Gly        | Ala        | Thr        | Asn        | Ala<br>125 | Gly        | Lys        | Ser        |  |
| Thr        | Leu<br>130 | Phe        | Asn        | Thr        | Leu        | Leu<br>135 | Glu        | Ser        | Asp        | Tyr        | Cys<br>140 | Thr        | Ala        | Lys        | Gly        |  |
| Ser<br>145 | Glu        | Ala        | Ile        | Asp        | Arg<br>150 | Ala        | Thr        | Ile        | Ser        | Pro<br>155 | Trp        | Pro        | Gly        | Thr        | Thr<br>160 |  |
| Leu        | Asn        | Leu        | Leu        | Lys<br>165 | Phe        | Pro        | Ile        | Cys        | Asn<br>170 | Pro        | Thr        | Pro        | Tyr        | Arg<br>175 | Met        |  |
| Phe        | Lys        | Arg        | His<br>180 | Gln        | Arg        | Leu        | Lys        | Lys<br>185 | Asp        | Ser        | Thr        | Gln        | Ala<br>190 | Glu        | Glu        |  |

00673395.122700

00422T" 56E2960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Leu | Ser | Glu | Gln | Glu | Gln | Asn | Gln | Leu | Asn | Val | Leu | Lys | Lys | His |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Gly | Tyr | Val | Val | Gly | Arg | Val | Gly | Arg | Thr | Phe | Leu | Tyr | Ser | Glu | Glu |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Gln | Lys | Asp | Asn | Ile | Pro | Phe | Glu | Phe | Asp | Ala | Asp | Ser | Leu | Ala | Phe |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |
| Asp | Met | Glu | Asn | Asp | Pro | Val | Met | Gly | Thr | His | Lys | Ser | Thr | Lys | Gln |
|     |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |
| Val | Glu | Leu | Thr | Ala | Gln | Asp | Val | Lys | Asp | Ala | His | Trp | Phe | Tyr | Asp |
|     |     |     | 260 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |
| Thr | Pro | Gly | Ile | Thr | Lys | Glu | Asn | Cys | Ile | Leu | Asn | Leu | Leu | Thr | Glu |
|     |     | 275 |     |     |     |     | 280 |     |     |     |     | 285 |     |     |     |
| Lys | Glu | Val | Asn | Ile | Val | Leu | Pro | Thr | Gln | Ser | Ile | Val | Pro | Arg | Thr |
|     | 290 |     |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |
| Phe | Val | Leu | Lys | Pro | Gly | Met | Val | Leu | Phe | Leu | Gly | Ala | Ile | Gly | Arg |
| 305 |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |
| Ile | Asp | Phe | Leu | Gln | Gly | Asn | Gln | Ser | Ala | Trp | Phe | Thr | Val | Val | Ala |
|     |     |     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |
| Ser | Asn | Ile | Leu | Pro | Val | His | Ile | Thr | Ser | Leu | Asp | Arg | Ala | Asp | Ala |
|     |     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |
| Leu | Tyr | Gln | Lys | His | Ala | Gly | His | Thr | Leu | Leu | Gln | Ile | Pro | Met | Gly |
|     |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |
| Gly | Lys | Glu | Arg | Met | Gly | Arg | Ile | Ser | Ser | Ser | Cys | Cys |     |     |     |
|     | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |

<210> 364  
 <211> 182  
 <212> PRT  
 <213> homo sapiens

<400> 364

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Pro | Ser | Thr | Thr | Cys | Thr | Ser | Val | Leu | Val | Cys | Leu | Leu | Ser | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Met | Pro | Leu | Pro | Val | Ala | Leu | Gln | Thr | Arg | Leu | Ala | Lys | Arg | Gly | Ile |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | Lys | His | Leu | Glu | Pro | Glu | Pro | Glu | Glu | Glu | Ile | Ile | Ala | Glu | Asp |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Tyr | Asp | Asp | Asp | Pro | Val | Asp | Tyr | Glu | Ala | Thr | Arg | Leu | Glu | Gly | Leu |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Pro | Pro | Ser | Trp | Tyr | Lys | Val | Phe | Asp | Pro | Ser | Cys | Gly | Leu | Pro | Tyr |
|     | 65  |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Tyr | Trp | Asn | Ala | Asp | Thr | Asp | Leu | Val | Ser | Trp | Leu | Ser | Pro | His | Asp |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Pro | Asn | Ser | Val | Val | Thr | Lys | Ser | Ala | Lys | Lys | Leu | Arg | Ser | Ser | Asn |

004227 56552960

| 100 |     |     |     |     |     | 105 |     |     |     |     |     | 110 |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ala | Asp | Ala | Glu | Glu | Lys | Leu | Asp | Arg | Ser | His | Asp | Lys | Ser | Asp | Arg |  |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |
| Gly | His | Asp | Lys | Ser | Asp | Arg | Ser | His | Glu | Lys | Leu | Asp | Arg | Gly | His |  |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |  |
| Asp | Lys | Ser | Asp | Arg | Gly | His | Asp | Lys | Ser | Asp | Arg | Asp | Arg | Glu | Arg |  |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |  |
| Gly | Tyr | Asp | Lys | Ser | Arg | Asn | Gly | Ile | Arg | Asp | Arg | Gly | Tyr | Asp | Gln |  |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |  |
| Ala | Asp | Arg | Glu | Glu | Gly |     |     |     |     |     |     |     |     |     |     |  |
|     |     |     | 180 |     |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 365  
 <211> 149  
 <212> PRT  
 <213> homo sapiens

<400> 365

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | His | Glu | Arg | Asp | Gly | Arg | Cys | Asp | Ser | Leu | Pro | Leu | Pro | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg | Val | Tyr | Trp | Ser | Val | Cys | Tyr | Gln | Leu | Cys | Arg | Cys | Pro | Leu | Arg |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Cys | Arg | Pro | Ala | Trp | Pro | Arg | Glu | Ala | Ser | Ser | Asn | Ile | Trp | Ser | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Asn | Gln | Arg | Lys | Arg | Ser | Leu | Pro | Arg | Thr | Met | Thr | Met | Ile | Leu | Trp |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Thr | Thr | Arg | Pro | Pro | Gly | Trp | Arg | Ala | Tyr | His | Gln | Ala | Gly | Thr | Arg |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Cys | Ser | Thr | Leu | Pro | Ala | Gly | Ser | Leu | Thr | Thr | Gly | Met | Gln | Thr | Gln |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Thr | Leu | Tyr | Pro | Gly | Ser | Pro | His | Met | Thr | Pro | Thr | Pro | Trp | Leu | Pro |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Asn | Arg | Pro | Arg | Ser | Ser | Glu | Ala | Val | Met | Gln | Met | Leu | Lys | Lys | Ser |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Trp | Thr | Gly | Ala | Met | Thr | Ser | Arg | Thr | Gly | Ala | Met | Thr | Ser | Arg | Thr |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Ala | Ala | Met | Arg | Asn |     |     |     |     |     |     |     |     |     |     |     |
| 145 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 366  
 <211> 80  
 <212> PRT  
 <213> homo sapiens

<400> 366

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Arg | Ser | Arg | Ser | Leu | Ser | Asp | Leu | Ser | Trp | Pro | Arg | Ser | Asp | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |

|           |           |           |           |     |           |           |           |           |     |           |           |           |           |     |           |
|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|-----------|
| Ser       | Trp       | Pro       | Leu<br>20 | Ser | Ser       | Phe       | Ser       | Trp<br>25 | Leu | Arg       | Ser       | Asp       | Leu<br>30 | Ser | Trp       |
| Pro       | Leu       | Ser<br>35 | Asp       | Leu | Ser       | Trp       | Leu<br>40 | Arg       | Ser | Asn       | Phe       | Ser<br>45 | Ser       | Ala | Ser       |
| Ala       | Leu<br>50 | Leu       | Leu       | Leu | Ser       | Phe<br>55 | Leu       | Ala       | Asp | Leu       | Val<br>60 | Thr       | Thr       | Glu | Leu       |
| Gly<br>65 | Ser       | Cys       | Gly       | Glu | Ser<br>70 | Gln       | Asp       | Thr       | Arg | Ser<br>75 | Val       | Ser       | Ala       | Phe | Gln<br>80 |

<210> 367  
 <211> 160  
 <212> PRT  
 <213> homo sapiens

<400> 367

|            |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|
| Val<br>1   | Ala        | Gln        | Gln        | Pro<br>5  | Ala        | Leu        | Ile        | His        | Gly<br>10 | Tyr        | Arg        | Lys        | Ala        | Val<br>15 | Leu        |
| Thr        | Pro        | Asn        | His<br>20  | Val       | Glu        | Phe        | Ser        | Arg<br>25  | Leu       | Tyr        | Asp        | Ala        | Val<br>30  | Leu       | Arg        |
| Gly        | Pro        | Met<br>35  | Asp        | Ser       | Asp        | Asp        | Ser<br>40  | His        | Gly       | Ser        | Val        | Leu<br>45  | Arg        | Leu       | Ser        |
| Gln        | Ala<br>50  | Leu        | Gly        | Asn       | Val        | Thr<br>55  | Val        | Val        | Gln       | Lys        | Gly<br>60  | Glu        | Arg        | Asp       | Ile        |
| Leu<br>65  | Ser        | Asn        | Gly        | Gln       | Gln<br>70  | Val        | Leu        | Val        | Cys       | Ser<br>75  | Gln        | Glu        | Gly        | Ser       | Ser<br>80  |
| Arg        | Arg        | Cys        | Gly        | Gly<br>85 | Gln        | Gly        | Asp        | Leu        | Leu<br>90 | Ser        | Gly        | Ser        | Leu        | Gly<br>95 | Val        |
| Leu        | Val        | His        | Trp<br>100 | Ala       | Leu        | Leu        | Ala        | Gly<br>105 | Pro       | Gln        | Lys        | Thr        | Asn<br>110 | Gly       | Ser        |
| Ser        | Pro        | Leu<br>115 | Leu        | Val       | Ala        | Ala        | Phe<br>120 | Gly        | Ala       | Cys        | Ser        | Leu<br>125 | Thr        | Arg       | Gln        |
| Cys        | Asn<br>130 | His        | Gln        | Ala       | Phe        | Gln<br>135 | Lys        | His        | Gly       | Arg        | Ser<br>140 | Thr        | Thr        | Thr       | Ser        |
| Asp<br>145 | Met        | Ile        | Ala        | Glu       | Val<br>150 | Gly        | Ala        | Ala        | Phe       | Ser<br>155 | Lys        | Leu        | Phe        | Glu       | Thr<br>160 |

<210> 368  
 <211> 164  
 <212> PRT  
 <213> homo sapiens

<400> 368

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Ile<br>1 | Leu | Asn | Gly       | Asn<br>5 | Gln | Phe | Met | Leu       | Lys<br>10 | Leu | Lys | Ile | Trp       | Gln<br>15 | Ala |
| Pro      | Tyr | Ala | Phe<br>20 | Ser      | Thr | Arg | Val | Gly<br>25 | Pro       | Asp | Phe | Pro | Ile<br>30 | Thr       | His |

09673395 "122700



00673395-122700

|                    |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |  |
|--------------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|--|
| Thr                | Leu        | Ser<br>35  | Pro        | Val       | Gln        | Gly        | Ala<br>40  | Cys        | Leu       | Leu        | Leu        | Val<br>45  | Cys        | Ala       | Gly        |  |
| Ser                | Gly<br>50  | Phe        | Lys        | Glu       | Leu        | Ala<br>55  | Glu        | Gly        | Gly       | Pro        | His<br>60  | Leu        | Gly        | Asp       | His        |  |
| Val<br>65          | Gly        | Gly        | Gly        | Gly       | Gly<br>70  | Ala        | Thr        | Val        | Leu       | Leu<br>75  | Glu        | Gly        | Leu        | Val       | Val<br>80  |  |
| Ala                | Leu        | Pro        | Gly        | Glu<br>85 | Arg        | Ala        | Gly        | Ala        | Lys<br>90 | Arg        | Gly        | His        | Gln        | Glu<br>95 | Arg        |  |
| Ala                | Gly        | Pro        | Ile<br>100 | Cys       | Phe        | Leu        | Trp        | Ser<br>105 | Ser       | Lys        | Glu        | Arg        | Pro<br>110 | Val       | Tyr        |  |
| Gln                | Asp        | Ala<br>115 | Gln        | Gly       | Ala        | Arg        | Gln<br>120 | Glu        | Val       | Pro        | Leu        | Pro<br>125 | Ser        | Thr       | Pro        |  |
| Ala                | Ala<br>130 | Ala        | Ala        | Phe       | Leu        | Ala<br>135 | Ala        | His        | Lys       | His        | Leu<br>140 | Leu        | Ala        | Val       | Gly        |  |
| Glu<br>145         | Asp        | Val        | Ala        | Leu       | Ser<br>150 | Phe        | Leu        | Asp        | His       | Arg<br>155 | His        | Val        | Ala        | Gln       | Gly<br>160 |  |
| Leu                | Ala        | Glu        | Ser        |           |            |            |            |            |           |            |            |            |            |           |            |  |
| <210> 369          |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |  |
| <211> 187          |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |  |
| <212> PRT          |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |  |
| <213> homo sapiens |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |  |
| <400> 369          |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |  |
| Lys<br>1           | Ser        | Gly        | Lys        | His<br>5  | Arg        | Thr        | Pro        | Ser        | Ala<br>10 | His        | Ala        | Trp        | Val        | Arg<br>15 | Ile        |  |
| Phe                | Pro        | Ser        | His<br>20  | Thr       | Arg        | Ser        | Pro        | Pro<br>25  | Ser       | Lys        | Val        | Pro        | Val<br>30  | Tyr       | Phe        |  |
| Trp                | Ser        | Ala<br>35  | Arg        | Ala       | Gln        | Val        | Ser<br>40  | Lys        | Ser       | Leu        | Leu        | Lys<br>45  | Ala        | Ala       | Pro        |  |
| Thr                | Ser<br>50  | Ala        | Ile        | Met       | Ser        | Glu<br>55  | Val        | Val        | Val       | Glu        | Arg<br>60  | Pro        | Cys        | Phe       | Trp        |  |
| Lys<br>65          | Ala        | Trp        | Trp        | Leu       | His<br>70  | Cys        | Leu        | Val        | Arg       | Glu<br>75  | Gln        | Ala        | Pro        | Asn       | Ala<br>80  |  |
| Ala                | Thr        | Arg        | Arg        | Gly<br>85 | Leu        | Asp        | Pro        | Phe        | Val<br>90 | Phe        | Cys        | Gly        | Pro        | Ala<br>95 | Arg        |  |
| Ser                | Ala        | Gln        | Cys<br>100 | Thr       | Arg        | Thr        | Pro        | Arg<br>105 | Glu       | Pro        | Asp        | Arg        | Arg<br>110 | Ser       | Pro        |  |
| Cys                | Pro        | Pro<br>115 | His        | Leu       | Arg        | Leu        | Leu<br>120 | Pro        | Ser       | Trp        | Leu        | His<br>125 | Thr        | Ser       | Thr        |  |
| Cys                | Trp<br>130 | Pro        | Leu        | Glu       | Arg        | Met<br>135 | Ser        | Arg        | Ser       | Pro        | Phe<br>140 | Trp        | Thr        | Thr       | Val        |  |
| Thr<br>145         | Leu        | Pro        | Arg        | Ala       | Trp<br>150 | Leu        | Ser        | Leu        | Ser       | Thr<br>155 | Asp        | Pro        | Trp        | Leu       | Ser<br>160 |  |

Ser Leu Ser Ile Gly Pro Leu Ser Thr Ala Ser Tyr Ser Leu Leu Asn  
 165 170 175

Ser Thr Trp Leu Gly Val Ser Thr Ala Phe Arg  
 180 185

<210> 370  
 <211> 40  
 <212> PRT  
 <213> homo sapiens

<400> 370

Leu Phe Leu Phe Thr Asn His Asn Asp Ser Gly Lys Pro Gly Cys Lys  
 1 5 10 15  
 His Gln His Cys His Gln Leu Arg Ile Cys Asp Gln Glu Cys His Leu  
 20 25 30  
 Thr Val Thr Gly Arg Arg Gln Lys  
 35 40

<210> 371  
 <211> 34  
 <212> PRT  
 <213> homo sapiens

<400> 371

Gln Ala Glu Asp Lys Ser Glu Thr Gly Leu Met Arg Ile Thr Gly Lys  
 1 5 10 15  
 Leu Ala Leu Ala Pro Pro Glu Asn Glu Leu Phe His Ser Leu Ala Asp  
 20 25 30  
 His Pro

<210> 372  
 <211> 38  
 <212> PRT  
 <213> homo sapiens

<400> 372

Asn Ser Ser Phe Ser Gly Gly Ala Lys Ala Ser Phe Pro Val Ile Arg  
 1 5 10 15  
 Ile Ser Pro Val Ser Leu Leu Ser Ser Ala Cys Tyr Arg Glu Met Ala  
 20 25 30  
 Leu Leu Ile Thr Asp Pro  
 35

<210> 373  
 <211> 123  
 <212> PRT  
 <213> homo sapiens

<400> 373

Arg Gln Leu Phe Gly Ile Val Ser Ile Ala Thr Leu Thr Val Leu Ala  
 1 5 10 15

00673395-12200

|           |           |            |            |           |           |           |            |            |           |           |           |           |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Tyr       | Glu       | Arg        | Tyr<br>20  | Ile       | Arg       | Val       | Val        | His<br>25  | Ala       | Arg       | Val       | Ile       | Asn<br>30  | Phe       | Ser       |
| Trp       | Ala       | Trp<br>35  | Arg        | Ala       | Ile       | Thr       | Tyr<br>40  | Ile        | Trp       | Leu       | Tyr       | Ser<br>45 | Leu        | Ala       | Trp       |
| Ala       | Gly<br>50 | Ala        | Pro        | Leu       | Leu       | Gly<br>55 | Trp        | Asn        | Arg       | Tyr       | Ile<br>60 | Leu       | Asp        | Val       | His       |
| Gly<br>65 | Leu       | Gly        | Cys        | Thr       | Val<br>70 | Asp       | Trp        | Lys        | Ser       | Lys<br>75 | Asp       | Ala       | Asn        | Asp       | Ser<br>80 |
| Ser       | Phe       | Val        | Leu        | Phe<br>85 | Leu       | Phe       | Leu        | Gly        | Cys<br>90 | Leu       | Val       | Val       | Pro        | Leu<br>95 | Gly       |
| Val       | Ile       | Ala        | His<br>100 | Cys       | Tyr       | Gly       | His        | Ile<br>105 | Leu       | Tyr       | Phe       | His       | Ser<br>110 | Asn       | Ala       |
| Ser       | Leu       | Val<br>115 | Trp        | Lys       | Ile       | Phe       | Arg<br>120 | Gln        | Phe       | Lys       |           |           |            |           |           |

```
<210> 374
<211> 121
<212> PRT
<213> homo sapiens
```

<400> 374

|           |           |            |            |           |           |           |            |            |           |           |           |           |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Thr<br>1  | Val       | His        | Ser        | Arg<br>5  | Gly       | Pro       | Cys        | Gln        | Ser<br>10 | Asp       | Gln       | Phe       | Phe        | Leu<br>15 | Gly       |
| Leu       | Glu       | Gly        | His<br>20  | Tyr       | Leu       | His       | Leu        | Ala<br>25  | Leu       | Leu       | Thr       | Gly       | Val<br>30  | Gly       | Arg       |
| Ser       | Thr       | Ser<br>35  | Pro        | Gly       | Met       | Glu       | Gln<br>40  | Val        | His       | Pro       | Gly       | Arg<br>45 | Thr        | Arg       | Thr       |
| Arg       | Leu<br>50 | His        | Cys        | Gly       | Leu       | Glu<br>55 | Ile        | Gln        | Gly       | Cys       | Gln<br>60 | Arg       | Phe        | Leu       | Leu       |
| Cys<br>65 | Ala       | Phe        | Leu        | Ile       | Ser<br>70 | Trp       | Leu        | Pro        | Gly       | Gly<br>75 | Ala       | Pro       | Gly        | Cys       | His<br>80 |
| Ser       | Pro       | Leu        | Leu        | Trp<br>85 | Pro       | Tyr       | Ser        | Ile        | Phe<br>90 | Pro       | Phe       | Glu       | Cys        | Phe<br>95 | Val       |
| Gly       | Val       | Glu        | Asp<br>100 | Leu       | Gln       | Thr       | Ile        | Gln<br>105 | Val       | Ile       | Lys       | Ile       | Leu<br>110 | Lys       | Tyr       |
| Glu       | Lys       | Lys<br>115 | Leu        | Ala       | Lys       | Met       | Cys<br>120 | Phe        |           |           |           |           |            |           |           |

```
<210> 375
<211> 58
<212> PRT
<213> homo sapiens
```

<400> 375

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| His<br>1 | Pro | Gly | Ala | Pro<br>5 | Pro | Gly | Ser | Gln | Glu<br>10 | Ile | Arg | Lys | Ala | Gln<br>15 | Arg |
| Arg      | Asn | Arg | Trp | His      | Pro | Trp | Ile | Ser | Ser       | Pro | Gln | Cys | Ser | Leu       | Val |

[illegible]

002221 56EE2960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Arg | Val | Arg | Pro | Gly | Cys | Thr | Cys | Ser | Ile | Pro | Gly | Glu | Val | Leu | Leu |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Pro | Thr | Pro | Val | Ser | Arg | Ala | Arg | Cys | Arg |     |     |     |     |     |     |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     |     |     |     |     |     |  |

<210> 376  
 <211> 49  
 <212> PRT  
 <213> homo sapiens

<400> 376

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ala | Phe | Thr | Cys | Asp | Phe | Val | Pro | Leu | Cys | Gly | Leu | Leu | Glu | Gln | Trp |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Thr | Thr | Lys | Ser | Ala | Met | Gln | Phe | Ile | Lys | Val | Asp | Leu | Val | Ile | Cys |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| His | Pro | Thr | Ala | Tyr | Gly | Pro | Cys | Lys | Pro | Val | Leu | Glu | Ala | Asn | Ile |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Leu |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 377  
 <211> 68  
 <212> PRT  
 <213> homo sapiens

<400> 377

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Phe | Cys | Thr | Thr | Leu | Trp | Pro | Ser | Gly | Ala | Met | Asp | Asn | Gln | Val | Ser |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Tyr | Ala | Val | His | Lys | Ser | Gly | Pro | Gly | Tyr | Met | Ser | Ser | Asn | Ser | Ile |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Trp | Ser | Leu | Gln | Ala | Cys | Phe | Gly | Ser | Gln | Tyr | Ser | Ile | Thr | Tyr | Arg |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Asn | Pro | Leu | Glu | Ser | Asp | Val | Phe | Gly | Ser | Asn | Ile | Phe | Ser | Gln | Gly |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Ser | Asn | Gly | Leu |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 378  
 <211> 64  
 <212> PRT  
 <213> homo sapiens

<400> 378

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| His | Ile | Thr | Arg | Ser | Thr | Phe | Met | Asn | Cys | Ile | Ala | Asp | Leu | Val | Val |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| His | Cys | Ser | Arg | Arg | Pro | Gln | Ser | Gly | Thr | Lys | Ser | Gln | Val | Lys | Ala |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Gln | Thr | Ala | Pro | Val | Ile | Leu | Val | Val | Leu | Ser | Leu | His | Ser | Ser | Pro |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Lys | Thr | Gly | Leu | Asn | Met | Lys | Ser | Pro | Ala | Pro | Arg | Pro | Gln |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

<210> 379  
 <211> 144  
 <212> PRT  
 <213> homo sapiens

<400> 379

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Pro | Ile | Ser | Ser | Asn | Phe | Cys | Ser | Glu | Ser | Ile | Trp | Gly | Tyr | Cys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Asp | Gln | Leu | Lys | Val | Ser | Glu | Ser | Thr | His | Val | Leu | Gln | Pro | Phe | Leu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Pro | Ser | Ile | Leu | Asp | Gly | Leu | Ile | His | Leu | Ala | Ala | Gln | Phe | Ser | Ser |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Glu | Val | Leu | Asn | Leu | Val | Met | Glu | Thr | Leu | Cys | Ile | Val | Cys | Thr | Val |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Asp | Pro | Glu | Phe | Thr | Ala | Ser | Met | Glu | Ser | Lys | Ile | Cys | Pro | Phe | Thr |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Ile | Ala | Ile | Phe | Leu | Lys | Tyr | Ser | Asn | Asp | Pro | Val | Val | Ala | Ser | Leu |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Ala | Gln | Asp | Ile | Phe | Lys | Glu | Leu | Ser | Gln | Ile | Glu | Ala | Cys | Gln | Gly |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Pro | Met | Gln | Met | Arg | Leu | Ile | Pro | Thr | Leu | Val | Ser | Ile | Met | Gln | Ala |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Pro | Ala | Asp | Lys | Ile | Pro | Ala | Gly | Leu | Cys | Ala | Thr | Pro | Leu | Ile | Ser |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |

<210> 380  
 <211> 254  
 <212> PRT  
 <213> homo sapiens

<400> 380

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Glu | Ile | Gln | Ser | Leu | Pro | Phe | Pro | Ser | Phe | Ser | Ser | Ala | Lys | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser | Leu | Leu | Trp | His | Ser | Val | Pro | Phe | Thr | Gln | Met | Thr | Met | Pro | Ser |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Val | Gln | Asn | Gly | Gly | Glu | Cys | Leu | Arg | Ala | Tyr | Val | Ser | Val | Thr | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Glu | Gln | Val | Ala | Gln | Trp | His | Asp | Glu | Gln | Gly | His | Asn | Gly | Leu | Trp |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Tyr | Val | Met | Gln | Val | Val | Ser | Gln | Leu | Leu | Asp | Pro | Arg | Thr | Ser | Glu |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Phe | Thr | Ala | Ala | Phe | Val | Gly | Arg | Leu | Val | Ser | Thr | Leu | Ile | Ser | Lys |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |

002227.5667960

002227-56557960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Ala        | Gly        | Arg        | Glu<br>100 | Leu        | Gly        | Glu        | Asn        | Leu<br>105 | Asp        | Gln        | Ile        | Leu        | Arg<br>110 | Ala        | Ile        |  |
| Leu        | Ser        | Lys<br>115 | Met        | Gln        | Gln        | Ala        | Glu<br>120 | Thr        | Leu        | Ser        | Val        | Met<br>125 | Gln        | Ser        | Leu        |  |
| Ile        | Met<br>130 | Val        | Phe        | Ala        | His        | Leu<br>135 | Val        | His        | Thr        | Gln        | Leu<br>140 | Glu        | Pro        | Leu        | Leu        |  |
| Glu<br>145 | Phe        | Leu        | Cys        | Ser        | Leu<br>150 | Pro        | Gly        | Pro        | Thr        | Gly<br>155 | Lys        | Pro        | Ala        | Leu        | Glu<br>160 |  |
| Phe        | Val        | Met        | Ala        | Glu<br>165 | Trp        | Thr        | Ser        | Arg        | Gln<br>170 | His        | Leu        | Phe        | Tyr        | Gly<br>175 | Gln        |  |
| Tyr        | Glu        | Gly        | Lys<br>180 | Val        | Ser        | Ser        | Val        | Ala<br>185 | Leu        | Cys        | Lys        | Leu        | Leu<br>190 | Gln        | His        |  |
| Gly        | Ile        | Asn<br>195 | Ala        | Asp        | Asp        | Lys        | Arg<br>200 | Leu        | Gln        | Asp        | Ile        | Arg<br>205 | Val        | Lys        | Gly        |  |
| Glu        | Glu<br>210 | Ile        | Tyr        | Ser        | Met        | Asp<br>215 | Glu        | Gly        | Ile        | Arg        | Thr<br>220 | Arg        | Ser        | Lys        | Ser        |  |
| Ala<br>225 | Lys        | Asn        | Pro        | Glu        | Arg<br>230 | Trp        | Thr        | Asn        | Ile        | Pro<br>235 | Leu        | Leu        | Val        | Lys        | Ile<br>240 |  |
| Leu        | Lys        | Leu        | Ile        | Ile<br>245 | Asn        | Glu        | Leu        | Ser        | Asn<br>250 | Val        | Met        | Gly        | Gly        |            |            |  |

<210> 381  
 <211> 95  
 <212> PRT  
 <213> homo sapiens

<400> 381

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |  |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| Ser<br>1  | Leu       | Ser       | Gly       | Pro<br>5  | Asn       | Ala       | Asn       | Glu       | Ala<br>10 | Asp       | Ser       | His       | Ser       | Gly<br>15 | Gln       |  |
| His       | Asn       | Ala       | Gly<br>20 | Pro       | Ser       | Arg       | Gln       | Asp<br>25 | Ser       | Cys       | Arg       | Ala       | Leu<br>30 | Cys       | Asp       |  |
| Thr       | Ile       | Asp<br>35 | Ile       | Leu       | Thr       | Thr       | Val<br>40 | Val       | Arg       | Asn       | Thr       | Lys<br>45 | Pro       | Pro       | Leu       |  |
| Ser       | Gln<br>50 | Leu       | Leu       | Ile       | Cys       | Gln<br>55 | Ala       | Phe       | Pro       | Ala       | Val<br>60 | Ala       | Gln       | Cys       | Thr       |  |
| Leu<br>65 | His       | Thr       | Asp       | Asp       | Asn<br>70 | Ala       | Ile       | Ser       | Ala       | Glu<br>75 | Trp       | Arg       | Arg       | Val       | Leu<br>80 |  |
| Ala       | Gly       | Leu       | Cys       | Val<br>85 | Ser       | Asp       | Pro       | Gly       | Thr<br>90 | Ser       | Ser       | Pro       | Val       | Ala<br>95 |           |  |

<210> 382  
 <211> 263  
 <212> PRT  
 <213> homo sapiens

<400> 382

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ala | Pro | Ile | Ser | Ser | Asn | Phe | Cys | Ser | Glu | Ser | Ile | Trp | Gly | Tyr | Cys |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

00673395-122700

| 1          |            |            |            | 5          |            |            |            | 10         |            |            |            | 15         |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Asp        | Gln        | Leu        | Lys<br>20  | Val        | Ser        | Glu        | Ser        | Thr<br>25  | His        | Val        | Leu        | Gln        | Pro<br>30  | Phe        | Leu        |
| Pro        | Ser        | Ile<br>35  | Leu        | Asp        | Gly        | Leu        | Ile<br>40  | His        | Leu        | Ala        | Ala        | Gln<br>45  | Phe        | Ser        | Ser        |
| Glu        | Val<br>50  | Leu        | Asn        | Leu        | Val        | Met<br>55  | Glu        | Thr        | Leu        | Cys        | Ile<br>60  | Val        | Cys        | Thr        | Val        |
| Asp<br>65  | Pro        | Glu        | Phe        | Thr        | Ala<br>70  | Ser        | Met        | Glu        | Ser        | Lys<br>75  | Ile        | Cys        | Pro        | Phe        | Thr<br>80  |
| Ile        | Ala        | Ile        | Phe        | Leu<br>85  | Lys        | Tyr        | Ser        | Asn        | Asp<br>90  | Pro        | Val        | Val        | Ala        | Ser<br>95  | Leu        |
| Ala        | Gln        | Asp        | Ile<br>100 | Phe        | Lys        | Glu        | Leu        | Ser<br>105 | Gln        | Ile        | Glu        | Ala        | Cys<br>110 | Gln        | Gly        |
| Pro        | Met        | Gln<br>115 | Met        | Arg        | Leu        | Ile        | Pro<br>120 | Thr        | Leu        | Val        | Ser        | Ile<br>125 | Met        | Gln        | Ala        |
| Pro        | Ala<br>130 | Asp        | Lys        | Ile        | Pro        | Ala<br>135 | Gly        | Leu        | Cys        | Ala        | Thr<br>140 | Pro        | Ile        | Asp        | Ile        |
| Leu<br>145 | Thr        | Thr        | Val        | Val        | Arg<br>150 | Asn        | Thr        | Lys        | Pro        | Pro<br>155 | Leu        | Ser        | Gln        | Leu        | Leu<br>160 |
| Ile        | Cys        | Gln        | Ala        | Phe<br>165 | Pro        | Ala        | Val        | Ala        | Gln<br>170 | Cys        | Thr        | Leu        | His        | Thr<br>175 | Asp        |
| Asp        | Asn        | Ala        | Thr<br>180 | Met        | Gln        | Asn        | Gly        | Gly<br>185 | Glu        | Cys        | Leu        | Arg        | Ala<br>190 | Tyr        | Val        |
| Ser        | Val        | Thr<br>195 | Leu        | Glu        | Gln        | Val        | Ala<br>200 | Gln        | Trp        | His        | Asp        | Glu<br>205 | Gln        | Gly        | His        |
| Asn        | Gly<br>210 | Leu        | Trp        | Tyr        | Val        | Met<br>215 | Gln        | Val        | Val        | Ser        | Gln<br>220 | Leu        | Leu        | Asp        | Pro        |
| Arg<br>225 | Thr        | Ser        | Glu        | Phe        | Thr<br>230 | Ala        | Ala        | Phe        | Val        | Gly<br>235 | Arg        | Leu        | Cys        | Phe        | His<br>240 |
| Pro        | His        | Leu        | Gln        | Gly<br>245 | Arg        | Ala        | Gly        | Thr        | Arg<br>250 | Gly        | Glu        | Ser        | Arg        | Pro<br>255 | Asp        |
| Phe        | Phe        | Val        | Pro<br>260 | Ser        | Phe        | Ser        |            |            |            |            |            |            |            |            |            |

<210> 383  
 <211> 68  
 <212> PRT  
 <213> homo sapiens

<400> 383

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Thr<br>1 | Leu | Arg | Cys       | Gly<br>5 | Gly | Pro | Gly | Ala       | Gly<br>10 | Ser | Pro | Leu | Ala       | Ser<br>15 | His |
| Thr      | Thr | Val | His<br>20 | Cys      | Gly | Pro | Ala | His<br>25 | His       | Ala | Thr | Gly | Leu<br>30 | Leu       | Val |

|           |           |           |     |     |     |           |           |     |     |     |           |           |     |     |     |  |
|-----------|-----------|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|--|
| Pro       | Gly       | Ser<br>35 | Leu | Thr | His | Arg       | Pro<br>40 | Ala | Ser | Thr | Leu       | Arg<br>45 | His | Ser | Ala |  |
| Trp       | Trp<br>50 | His       | Cys | His | Leu | Cys<br>55 | Glu       | Gly | Tyr | Thr | Val<br>60 | Pro       | Gln | Gln | Gly |  |
| Lys<br>65 | Leu       | Gly       | Arg |     |     |           |           |     |     |     |           |           |     |     |     |  |

<210> 384  
 <211> 97  
 <212> PRT  
 <213> homo sapiens

<400> 384

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |  |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| His<br>1  | Ile       | Gly       | Pro       | Gln<br>5  | Ala       | Leu       | Ser       | Ala       | Ile<br>10 | Leu       | His       | Gly       | Gly       | Ile<br>15 | Val       |  |
| Ile       | Cys       | Val       | Lys<br>20 | Gly       | Thr       | Leu       | Cys       | His<br>25 | Ser       | Arg       | Glu       | Ser       | Leu<br>30 | Ala       | Asp       |  |
| Glu       | Lys       | Leu<br>35 | Gly       | Lys       | Gly       | Arg       | Leu<br>40 | Cys       | Ile       | Ser       | Tyr       | Tyr<br>45 | Cys       | Cys       | Gln       |  |
| Asp       | Ile<br>50 | Asn       | Gly       | Cys       | Arg       | Thr<br>55 | Lys       | Pro       | Cys       | Arg       | Asn<br>60 | Leu       | Val       | Cys       | Trp       |  |
| Gly<br>65 | Leu       | His       | Tyr       | Ala       | Asp<br>70 | Gln       | Ser       | Gly       | Asn<br>75 | Gln<br>75 | Pro       | His       | Leu       | His       | Trp<br>80 |  |
| Ala       | Leu       | Thr       | Gly       | Phe<br>85 | Asn       | Leu       | Gly       | Gln       | Leu<br>90 | Leu       | Glu       | Asp       | Val       | Leu<br>95 | Ser       |  |
| Gln       |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |  |

<210> 385  
 <211> 140  
 <212> PRT  
 <213> homo sapiens

<400> 385

|           |           |           |            |           |           |           |           |            |           |           |           |           |            |           |           |  |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|--|
| Thr<br>1  | Arg       | Ser       | Ser        | Ser<br>5  | Pro       | Gln       | Thr       | Ile        | Thr<br>10 | Phe       | Asp       | Ala       | Cys        | Val<br>15 | Val       |  |
| Ile       | Pro       | Cys       | Gly<br>20  | Asp       | Leu       | Gln       | Ser       | Gln<br>25  | Lys       | Gln       | Leu       | Ser       | Asp<br>30  | Ser       | Glu       |  |
| Lys       | Tyr       | Leu<br>35 | Cys        | Pro       | Phe       | Lys       | Ile<br>40 | Lys        | Gly       | Ser       | Pro       | Tyr<br>45 | Gln        | Asp       | Pro       |  |
| Cys       | Ser<br>50 | Leu       | Thr        | Asn       | Ala       | Gly<br>55 | Lys       | Gln        | Val       | Cys       | His<br>60 | Ser       | Trp        | Asn       | Glu       |  |
| Val<br>65 | Val       | Trp       | Thr        | Thr       | Glu<br>70 | Tyr       | Gln       | Gly        | Trp       | Thr<br>75 | Ser       | Ser       | Thr        | Gly       | Gly<br>80 |  |
| Cys       | Met       | Ser       | Leu        | Lys<br>85 | Pro       | Tyr       | Ile       | His        | Phe<br>90 | Thr       | Lys       | Glu       | Ser        | Thr<br>95 | Pro       |  |
| His       | Asn       | Cys       | Gln<br>100 | Tyr       | Asn       | Gln       | Cys       | Asn<br>105 | Pro       | Val       | Gln       | Ile       | Ser<br>110 | Ile       | Leu       |  |

004221 5562960



|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Pro | Thr | Ser | Thr | Asp | Pro | Lys | Pro | Thr | Leu | Ser | Cys | Gly | Ile | Trp |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| His | Gly | Ser | Arg | Asn | Ser | Arg | Gly | Thr | Ser | Tyr | Trp |     |     |     |     |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |

<210> 386  
 <211> 49  
 <212> PRT  
 <213> homo sapiens

<400> 386

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Val | Pro | Leu | Leu | Phe | Arg | Leu | Pro | Cys | His | Ile | Pro | Gln | Leu | Lys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Val | Gly | Leu | Gly | Ser | Val | Glu | Val | Gly | Met | Arg | Ile | Glu | Ile | Cys | Thr |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gly | Leu | His | Trp | Leu | Tyr | Trp | Gln | Leu | Trp | Gly | Val | Leu | Ser | Leu | Val |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |

Lys

<210> 387  
 <211> 51  
 <212> PRT  
 <213> homo sapiens

<400> 387

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Glu | Cys | Met | Val | Leu | Arg | Thr | Tyr | Asn | His | Arg | Leu | Thr | Arg | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser | Leu | Asp | Ile | Gln | Leu | Ser | Thr | Pro | Pro | His | Ser | Ser | Tyr | Gly | Arg |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Pro | Val | Phe | Leu | His | Ser | Leu | Arg | Asn | Lys | Gly | Leu | Asp | Arg | Gly | Ser |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Leu | Leu | Ser |     |     |     |     |     |     |     |     |     |     |     |     |     |
|     | 50  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 388  
 <211> 97  
 <212> PRT  
 <213> homo sapiens

<400> 388

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ser | Pro | Leu | Ser | Phe | Cys | Trp | Phe | Leu | Pro | Ser | Pro | Ala | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser | Cys | Ser | Ser | Ser | Cys | Pro | Ser | Gly | Met | Thr | Ser | Trp | Ser | Arg | Ser |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gly | Pro | Ser | Ile | Ser | Gly | Phe | Ser | Trp | Leu | Thr | Asp | Arg | Ala | Ala | Cys |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Thr | Cys | Gly | Val | Trp | Pro | Ser | Ser | Pro | Ala | Pro | Pro | Lys | Pro | Leu | Pro |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

002221" 56EE2960

|           |     |     |     |           |           |     |     |     |           |           |     |     |     |           |           |
|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|
| Pro<br>65 | Thr | Gly | Leu | Ser       | Ser<br>70 | Thr | Pro | Ala | Pro       | Gly<br>75 | Leu | Ala | Pro | Ala       | Ala<br>80 |
| Ala       | Cys | Pro | Ser | Glu<br>85 | Ala       | Pro | Ile | Asn | Thr<br>90 | Asp       | Leu | Met | Val | Pro<br>95 | Phe       |

Pro

<210> 389  
 <211> 148  
 <212> PRT  
 <213> homo sapiens

<400> 389

|            |            |            |            |           |           |            |            |            |           |           |            |            |            |           |           |
|------------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|
| Gly<br>1   | Lys        | Gly        | Thr        | Met<br>5  | Arg       | Ser        | Val        | Leu        | Ile<br>10 | Gly       | Ala        | Ser        | Glu        | Gly<br>15 | Gln       |
| Ala        | Ala        | Ala        | Gly<br>20  | Ala       | Arg       | Pro        | Gly        | Ala<br>25  | Gly       | Val       | Glu        | Asp        | Arg<br>30  | Pro       | Val       |
| Gly        | Gly        | Arg<br>35  | Gly        | Phe       | Gly       | Gly        | Ala<br>40  | Gly        | Glu       | Leu       | Gly        | Gln<br>45  | Thr        | Pro       | Gln       |
| Val        | Gln<br>50  | Ala        | Ala        | Leu       | Ser       | Val<br>55  | Ser        | Gln        | Glu       | Asn       | Pro<br>60  | Glu        | Met        | Glu       | Gly       |
| Pro<br>65  | Glu        | Arg        | Asp        | Gln       | Leu<br>70 | Val        | Ile        | Pro        | Asp       | Gly<br>75 | Gln        | Glu        | Glu        | Glu       | Gln<br>80 |
| Glu        | Ala        | Ala        | Gly        | Glu<br>85 | Gly       | Arg        | Asn        | Gln        | Gln<br>90 | Lys       | Leu        | Arg        | Gly        | Glu<br>95 | Asp       |
| Asp        | Tyr        | Asn        | Met<br>100 | Asp       | Glu       | Asn        | Glu        | Ala<br>105 | Glu       | Ser       | Glu        | Thr        | Asp<br>110 | Lys       | Gln       |
| Ala        | Ala        | Leu<br>115 | Ala        | Gly       | Asn       | Asp        | Arg<br>120 | Asn        | Ile       | Asp       | Val        | Phe<br>125 | Asn        | Val       | Glu       |
| Asp        | Gln<br>130 | Lys        | Arg        | Asp       | Thr       | Ile<br>135 | Asn        | Leu        | Leu       | Asp       | Gln<br>140 | Arg        | Glu        | Lys       | Arg       |
| Asn<br>145 | His        | Thr        | Leu        |           |           |            |            |            |           |           |            |            |            |           |           |

<210> 390  
 <211> 84  
 <212> PRT  
 <213> homo sapiens

<400> 390

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Gly<br>1 | Pro       | Arg       | Asp       | Arg<br>5 | Leu | Ile       | Gln       | Pro       | Ser<br>10 | Tyr | Phe       | Gln       | Arg       | Gly<br>15 | Lys |
| Trp      | Gly       | Leu       | Glu<br>20 | Val      | Thr | Glu       | His       | Leu<br>25 | Ala       | Gly | Ala       | Leu       | Ala<br>30 | Pro       | Leu |
| Ala      | Ser       | His<br>35 | Arg       | Leu      | Pro | Ser       | Ser<br>40 | Trp       | Asp       | Tyr | Arg       | His<br>45 | Thr       | Val       | Thr |
| Glu      | Ala<br>50 | Gly       | Pro       | Val      | Cys | Asn<br>55 | Ser       | Arg       | Cys       | His | Leu<br>60 | Gln       | Leu       | Lys       | His |

002227-5662960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Tyr | Val | Met | Ser | Leu | Val | Thr | Lys | Val | Lys | Leu | Ser | His | Pro |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |

Glu Lys Ala Thr

<210> 391  
 <211> 59  
 <212> PRT  
 <213> homo sapiens

<400> 391

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Gly | Lys | Lys | Cys | Ile | Thr | Leu | Phe | Leu | Phe | Leu | Ser | Pro | Ser | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Pro | Leu | Trp | Cys | Leu | Arg | Tyr | Trp | Gly | Ser | His | Ser | Trp | Gly | His | Ser |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Glu | Ala | Thr | Arg | Asn | Ala | Ser | Ser | Leu | His | Leu | Ala | Val | Ser | Ala | Arg |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Thr | Arg | Asn | Pro | Gln | Thr | Ser | Ser | Gln | Thr | Ser |     |     |     |     |     |
|     | 50  |     |     |     |     | 55  |     |     |     |     |     |     |     |     |     |

<210> 392  
 <211> 107  
 <212> PRT  
 <213> homo sapiens

<400> 392

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Arg | Asn | Leu | Asn | Phe | His | Ser | Lys | Leu | Thr | Gln | Phe | His | Cys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Val | Asn | Thr | Val | Ser | Leu | Gly | Ser | Thr | Lys | His | Pro | Ile | Thr | Gln | Phe |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Cys | Phe | Ile | Val | Trp | Thr | Pro | Ser | Arg | Leu | Gln | Gly | His | His | Gly | Gln |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Glu | Val | Cys | Glu | Glu | Val | Cys | Gly | Phe | Leu | Val | Leu | Ala | Leu | Thr | Ala |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Arg | Cys | Lys | Leu | Glu | Ala | Phe | Leu | Val | Ala | Ser | Glu | Trp | Pro | Gln | Leu |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Trp | Asp | Pro | Gln | Tyr | Leu | Arg | His | His | Arg | Gly | Arg | Glu | Gly | Asp | Arg |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Asn | Arg | Asn | Arg | Val | Met | His | Phe | Phe | Pro | His |     |     |     |     |     |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     |     |     |     |

<210> 393  
 <211> 61  
 <212> PRT  
 <213> homo sapiens

<400> 393

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ala | Pro | Ala | Val | Gly | Ser | Pro | Val | Ser | Gln | Ala | Pro | Gln | Arg | Gln |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |

00222T 5662960



<400> 396

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Asp<br>1 | Arg | Arg       | Ser       | His<br>5 | Gly | Leu | Leu       | Leu       | Tyr<br>10 | Asn | Leu | Pro       | Gly       | Glu<br>15 | Gln |
| Phe      | Lys | Asn       | Met<br>20 | Asn      | Gln | Asp | Pro       | Phe<br>25 | Asp       | Pro | Leu | Ile       | Ile<br>30 | Gln       | Lys |
| Ser      | Thr | Gln<br>35 | Lys       | Tyr      | Ala | Gln | Lys<br>40 | Tyr       | Val       | Gly | Ile | His<br>45 |           |           |     |

<210> 397

<211> 43

<212> PRT

<213> homo sapiens

<400> 397

|          |     |           |           |          |     |     |           |           |           |     |     |     |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Glu<br>1 | Arg | Leu       | Ser       | His<br>5 | Cys | Arg | Ser       | Leu       | Val<br>10 | Met | Leu | Ala | Leu       | Ile<br>15 | Ser |
| Leu      | Cys | Thr       | Pro<br>20 | Cys      | Thr | His | Ala       | Phe<br>25 | Ser       | Pro | Val | Phe | Tyr<br>30 | Gln       | Ala |
| Ser      | Val | Ser<br>35 | Cys       | Ile      | Thr | Leu | Lys<br>40 | Cys       | Asp       | His |     |     |           |           |     |

<210> 398

<211> 64

<212> PRT

<213> homo sapiens

<400> 398

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Trp<br>1 | Ile       | Lys       | Arg       | Ile<br>5 | Leu | Ile       | His       | Ile       | Phe<br>10 | Lys | Leu       | Leu       | Ser       | Arg<br>15 | Glu |
| Val      | Val       | Lys       | Gln<br>20 | Gln      | Ser | Met       | Arg       | Ala<br>25 | Ser       | Ile | Ser       | Leu       | Pro<br>30 | Leu       | Leu |
| Gly      | Asp       | Ala<br>35 | Cys       | Pro      | His | Leu       | Pro<br>40 | Met       | Tyr       | Pro | Met       | His<br>45 | Ser       | Cys       | Leu |
| Leu      | Ser<br>50 | Cys       | Phe       | Leu      | Ser | Ser<br>55 | Leu       | Ser       | Phe       | Met | Tyr<br>60 | Tyr       | Thr       | Lys       | Met |

<210> 399

<211> 77

<212> PRT

<213> homo sapiens

<400> 399

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| His<br>1 | Ile | Lys       | Ile       | Glu<br>5 | Phe | Phe | Gly       | Gln       | Asn<br>10 | Phe | Trp | Glu       | Ala       | Met<br>15 | His |
| Pro      | Thr | Trp       | Ala<br>20 | Asp      | Ile | Gln | Pro       | Glu<br>25 | Leu       | Phe | Ser | Arg       | Gly<br>30 | Glu       | Trp |
| Tyr      | Trp | Gln<br>35 | Phe       | Met      | Ala | Glu | Ile<br>40 | His       | Ser       | Asp | Trp | Leu<br>45 | Glu       | Ser       | Met |

002221"56EE2960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Tyr | Gln | Leu | Leu | Asn | Ile | Leu | Ser | Ile | Thr | Leu | Ala | Tyr | Cys | Tyr |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Tyr | Tyr | Ile | Ser | Ser | Ile | Tyr | Arg | Gln | Lys | Gly | His | Phe |     |     |     |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     |     |

<210> 400  
 <211> 48  
 <212> PRT  
 <213> homo sapiens

<400> 400

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Leu | Gly | Lys | Thr | Phe | Gly | Lys | Gln | Cys | Ile | Leu | His | Gly | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ile | Phe | Ser | Leu | Ser | Cys | Ser | Gln | Glu | Glu | Ser | Gly | Thr | Gly | Ser | Leu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Trp | Leu | Lys | Ser | Ile | Leu | Ile | Gly | Trp | Ser | Leu | Cys | Tyr | Thr | Ser | Cys |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |

<210> 401  
 <211> 48  
 <212> PRT  
 <213> homo sapiens

<400> 401

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Asn | Pro | Ala | Leu | Ile | Glu | Pro | Ser | Val | Gly | Ser | Thr | Ala | Glu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ile | Phe | Arg | Ala | Phe | Asn | Ile | Leu | Lys | Met | Ala | Phe | Leu | Ser | Ile | Tyr |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Arg | Gly | Asn | Ile | Ile | Val | Thr | Val | Cys | Lys | Ser | Asp | Thr | Gln | Asn | Val |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |

<210> 402  
 <211> 70  
 <212> PRT  
 <213> homo sapiens

<400> 402

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Gln | Leu | Arg | Leu | Asn | Ile | Ser | Pro | Cys | Arg | Met | His | Cys | Phe | Pro |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Lys | Val | Leu | Pro | Lys | Glu | Leu | Tyr | Phe | Tyr | Val | Leu | Ser | His | Arg | Thr |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gly | Glu | Lys | Cys | Ser | Gly | His | Cys | Trp | Asp | Leu | Ile | Phe | Leu | Gly | Met |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Gly | Ser | Gly | Leu | Met | Ile | Leu | Ala | Thr | Gly | Val | Gln | Glu | Asn | Gly | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Pro | Gly | Ser | Asp | Ser | Trp |     |     |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     | 70  |     |     |     |     |     |     |     |     |     |     |

<210> 403  
 <211> 63  
 <212> PRT

00673395-122700

<213> homo sapiens

<400> 403

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Met<br>1 | Cys       | Asp       | Phe       | Ile<br>5 | Arg | Gly       | Ile       | Cys       | Gln<br>10 | Phe | Ser       | His       | Cys       | Gly<br>15 | Ser |
| Phe      | Ser       | Asp       | Phe<br>20 | Ala      | Cys | Ser       | Ser       | Ser<br>25 | Lys       | Glu | Ala       | Arg       | Ser<br>30 | Phe       | Ala |
| Asp      | Phe       | Thr<br>35 | Ile       | Pro      | Gln | Thr       | Cys<br>40 | Lys       | Phe       | Leu | Thr       | Ser<br>45 | Ser       | Lys       | Leu |
| Ala      | Leu<br>50 | Ala       | Leu       | Ser      | Ser | Thr<br>55 | Phe       | Pro       | Phe       | Lys | Ser<br>60 | Asn       | Leu       | Cys       |     |

<210> 404

<211> 71

<212> PRT

<213> homo sapiens

<400> 404

|           |           |           |           |          |           |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Met<br>1  | Gly       | Ile       | Thr       | His<br>5 | Glu       | Cys       | Val       | Ile       | Leu<br>10 | Leu | Gly       | Ala       | Ser       | Ala<br>15 | Asn |
| Ser       | Leu       | Thr       | Val<br>20 | Val      | Pro       | Ser       | Leu       | Thr<br>25 | Leu       | Pro | Val       | His       | His<br>30 | Leu       | Arg |
| Arg       | Leu       | Asp<br>35 | Pro       | Ser      | Leu       | Thr       | Ser<br>40 | Pro       | Phe       | Leu | Lys       | Pro<br>45 | Val       | Ser       | Phe |
| Ser       | Leu<br>50 | Leu       | Pro       | Asn      | Trp       | Leu<br>55 | Trp       | Leu       | Phe       | Leu | Gln<br>60 | Pro       | Phe       | His       | Ser |
| Arg<br>65 | Ala       | Ile       | Phe       | Ala      | Lys<br>70 | Glu       |           |           |           |     |           |           |           |           |     |

<210> 405

<211> 63

<212> PRT

<213> homo sapiens

<400> 405

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Leu<br>1 | Gly       | Asp       | His       | Ile<br>5 | Tyr | Asn       | Trp       | Asp       | Val<br>10 | Asn | His       | Phe       | Phe       | Ser<br>15 | Gly |
| Ile      | Arg       | Ala       | Gln<br>20 | Arg      | His | Asn       | Leu       | Gln<br>25 | Gly       | His | Ile       | Ile       | Tyr<br>30 | Tyr       | Glu |
| His      | Phe       | Thr<br>35 | Val       | Arg      | Leu | Phe       | Ile<br>40 | Leu       | Pro       | Ser | Thr       | Cys<br>45 | Ala       | Glu       | Met |
| Lys      | Pro<br>50 | Lys       | Gln       | Ala      | Val | Gly<br>55 | Phe       | His       | Lys       | Ser | Ile<br>60 | Tyr       | Val       | Gly       |     |

<210> 406

<211> 88

<212> PRT

<213> homo sapiens

<400> 406

002221"55E2950

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Leu<br>1  | Val       | Glu       | Pro       | Asn<br>5  | Gly       | Leu       | Phe       | Trp       | Phe<br>10 | His       | Phe       | Ser       | Ala       | Ser<br>15 | Arg       |
| Arg       | Gln       | Asn       | Lys<br>20 | Glu       | Ser       | His       | Ser       | Lys<br>25 | Met       | Phe       | Ile       | Val       | Asp<br>30 | Asn       | Met       |
| Ser       | Leu       | Lys<br>35 | Val       | Val       | Pro       | Leu       | Cys<br>40 | Ser       | Tyr       | Ser       | Thr       | Glu<br>45 | Glu       | Met       | Ile       |
| His       | Ile<br>50 | Pro       | Ile       | Ile       | Asp       | Met<br>55 | Val       | Ser       | Gln       | Ser       | Glu<br>60 | Glu       | Ser       | Phe       | Arg       |
| Arg<br>65 | Leu       | His       | Lys       | Tyr       | Val<br>70 | Leu       | Cys       | Thr       | Cys       | Pro<br>75 | Met       | Leu       | Gly       | Asn       | Arg<br>80 |
| Lys       | Ile       | Ile       | Val       | Ile<br>85 | Asp       | Lys       | Thr       |           |           |           |           |           |           |           |           |

<210> 407  
 <211> 296  
 <212> PRT  
 <213> homo sapiens

<400> 407

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Leu<br>1   | Thr        | Val        | Val        | Tyr<br>5   | Thr        | Val        | Phe        | Tyr        | Ala<br>10  | Leu        | Leu        | Phe        | Val        | Phe<br>15  | Ile        |
| Tyr        | Val        | Gln        | Leu<br>20  | Trp        | Leu        | Val        | Leu        | Arg<br>25  | Tyr        | Arg        | His        | Lys        | Arg<br>30  | Leu        | Ser        |
| Tyr        | Gln        | Ser<br>35  | Val        | Phe        | Leu        | Phe        | Leu<br>40  | Cys        | Leu        | Phe        | Trp        | Ala<br>45  | Ser        | Arg        | Arg        |
| Thr        | Val<br>50  | Leu        | Phe        | Ser        | Phe        | Tyr<br>55  | Phe        | Lys        | Asp        | Phe        | Val<br>60  | Ala        | Ala        | Asn        | Ser        |
| Leu<br>65  | Ser        | Pro        | Phe        | Val        | Phe<br>70  | Trp        | Leu        | Leu        | Tyr        | Cys<br>75  | Phe        | Pro        | Val        | Cys        | Leu<br>80  |
| Gln        | Phe        | Phe        | Thr        | Leu<br>85  | Thr        | Leu        | Met        | Asn        | Leu<br>90  | Tyr        | Phe        | Thr        | Gln        | Val<br>95  | Ile        |
| Phe        | Lys        | Ala        | Lys<br>100 | Ser        | Lys        | Tyr        | Ser        | Pro<br>105 | Glu        | Leu        | Leu        | Lys        | Tyr<br>110 | Arg        | Leu        |
| Pro        | Leu        | Tyr<br>115 | Leu        | Ala        | Ser        | Leu        | Phe<br>120 | Ile        | Ser        | Leu        | Val        | Phe<br>125 | Leu        | Leu        | Val        |
| Asn        | Leu<br>130 | Thr        | Cys        | Ala        | Val        | Leu<br>135 | Val        | Lys        | Thr        | Gly        | Asn<br>140 | Trp        | Glu        | Arg        | Lys        |
| Val<br>145 | Ile        | Val        | Ser        | Val        | Arg<br>150 | Val        | Ala        | Ile        | Asn        | Asp<br>155 | Thr        | Leu        | Phe        | Val        | Leu<br>160 |
| Cys        | Ala        | Val        | Ser        | Leu<br>165 | Ser        | Ile        | Cys        | Leu        | Tyr<br>170 | Lys        | Ile        | Ser        | Lys        | Met<br>175 | Ser        |
| Leu        | Ala        | Asn        | Ile<br>180 | Tyr        | Leu        | Glu        | Ser        | Lys<br>185 | Gly        | Ser        | Ser        | Val        | Cys<br>190 | Gln        | Val        |
| Thr        | Ala        | Ile        | Gly        | Val        | Thr        | Val        | Ile        | Leu        | Leu        | Tyr        | Thr        | Ser        | Arg        | Ala        | Cys        |

00673395-122700



09673395-122700

| 195        |            |            |            |            |            | 200        |            |            |            |            | 205        |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Tyr        | Asn<br>210 | Leu        | Phe        | Ile        | Leu        | Ser<br>215 | Phe        | Ser        | Gln        | Asn        | Lys<br>220 | Ser        | Val        | His        | Ser        |
| Phe<br>225 | Asp        | Tyr        | Asp        | Trp        | Tyr<br>230 | Asn        | Val        | Ser        | Asp        | Gln<br>235 | Ala        | Asp        | Leu        | Lys        | Asn<br>240 |
| Gln        | Leu        | Gly        | Asp        | Ala<br>245 | Gly        | Tyr        | Val        | Leu        | Phe<br>250 | Gly        | Val        | Val        | Leu        | Phe<br>255 | Val        |
| Trp        | Glu        | Leu        | Leu<br>260 | Pro        | Thr        | Thr        | Leu        | Val<br>265 | Val        | Tyr        | Phe        | Phe        | Arg<br>270 | Val        | Arg        |
| Asn        | Pro        | Thr<br>275 | Lys        | Asp        | Leu        | Thr        | Asn<br>280 | Pro        | Gly        | Met        | Val        | Pro<br>285 | Ser        | His        | Gly        |
| Phe        | Ser<br>290 | Pro        | Gln        | Ile        | Leu        | Phe<br>295 | Leu        |            |            |            |            |            |            |            |            |

<210> 408  
 <211> 152  
 <212> PRT  
 <213> homo sapiens

<400> 408

|            |            |            |            |           |            |            |            |            |           |           |            |            |            |           |           |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|
| His<br>1   | Arg        | Arg        | Leu        | His<br>5  | Arg        | Val        | Leu        | Arg        | Ala<br>10 | Ala       | Leu        | Arg        | Val        | His<br>15 | Leu       |
| Arg        | Ala        | Ala        | Leu<br>20  | Ala       | Gly        | Ala        | Ala        | Leu<br>25  | Pro       | Pro       | Gln        | Ala        | Ala<br>30  | Gln       | Leu       |
| Pro        | Glu        | Arg<br>35  | Leu        | Pro       | Leu        | Ser        | Leu<br>40  | Pro        | Leu       | Leu       | Gly        | Leu<br>45  | Pro        | Ala       | Asp       |
| Arg        | Pro<br>50  | Leu        | Leu        | Leu       | Leu        | Leu<br>55  | Gln        | Arg        | Leu       | Arg       | Gly<br>60  | Gly        | Gln        | Phe       | Ala       |
| Gln<br>65  | Pro        | Leu        | Arg        | Leu       | Leu<br>70  | Ala        | Ala        | Leu        | Leu       | Leu<br>75 | Pro        | Cys        | Val        | Pro       | Ala<br>80 |
| Val        | Phe        | His        | Pro        | His<br>85 | Ala        | Asp        | Glu        | Leu        | Val<br>90 | Leu       | His        | Ala        | Gly        | Asp<br>95 | Phe       |
| Gln        | Ser        | Gln        | Val<br>100 | Lys       | Ile        | Phe        | Ser        | Arg<br>105 | Ile       | Thr       | Gln        | Ile        | Pro<br>110 | Val       | Ala       |
| Pro        | Leu        | Pro<br>115 | Gly        | Leu       | Pro        | Leu        | His<br>120 | Gln        | Pro       | Cys       | Phe        | Pro<br>125 | Val        | Gly       | Glu       |
| Phe        | Asn<br>130 | Leu        | Cys        | Cys       | Ala        | Gly<br>135 | Lys        | Asp        | Gly       | Lys       | Leu<br>140 | Gly        | Glu        | Glu       | Gly       |
| Tyr<br>145 | Arg        | Leu        | Cys        | Ala       | Ser<br>150 | Gly        | His        |            |           |           |            |            |            |           |           |

<210> 409  
 <211> 100  
 <212> PRT  
 <213> homo sapiens

<400> 409

|           |           |           |            |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Leu<br>1  | Gly       | Phe       | Glu        | Asn<br>5  | His       | Leu       | Arg       | Glu       | Val<br>10 | Gln       | Val       | His       | Gln       | Arg<br>15 | Glu       |
| Gly       | Glu       | Lys       | Leu<br>20  | Gln       | Ala       | His       | Arg       | Glu<br>25 | Ala       | Val       | Glu       | Gln       | Pro<br>30 | Glu       | Asp       |
| Glu       | Gly       | Ala<br>35 | Glu        | Arg       | Ile       | Gly       | Arg<br>40 | His       | Glu       | Val       | Phe       | Glu<br>45 | Val       | Glu       | Gly       |
| Glu       | Glu<br>50 | Asp       | Gly        | Pro       | Pro       | Gly<br>55 | Gly       | Pro       | Glu       | Glu       | Ala<br>60 | Glu       | Lys       | Glu       | Glu       |
| Asp<br>65 | Ala       | Leu       | Val        | Ala       | Glu<br>70 | Pro       | Leu       | Val       | Ala       | Val<br>75 | Thr       | Gln       | His       | Gln       | Pro<br>80 |
| Glu       | Leu       | His       | Val        | Asp<br>85 | Glu       | His       | Glu       | Glu       | Gln<br>90 | Arg       | Val       | Glu       | His       | Gly<br>95 | Val       |
| Asp       | Asp       | Gly       | Glu<br>100 |           |           |           |           |           |           |           |           |           |           |           |           |

<210> 410  
 <211> 268  
 <212> PRT  
 <213> homo sapiens

<400> 410

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ala<br>1   | Pro        | Ile        | Ser        | Ser<br>5   | Asn        | Phe        | Cys        | Ser        | Glu<br>10  | Ser        | Ile        | Trp        | Gly        | Tyr<br>15  | Cys        |
| Asp        | Gln        | Leu        | Lys<br>20  | Val        | Ser        | Glu        | Ser        | Thr<br>25  | His        | Val        | Leu        | Gln        | Pro<br>30  | Phe        | Leu        |
| Pro        | Ser        | Ile<br>35  | Leu        | Asp        | Gly        | Leu        | Ile<br>40  | His        | Leu        | Ala        | Ala        | Gln<br>45  | Phe        | Ser        | Ser        |
| Glu        | Val<br>50  | Leu        | Asn        | Leu        | Val        | Met<br>55  | Glu        | Thr        | Leu        | Cys        | Ile<br>60  | Val        | Cys        | Thr        | Val        |
| Asp<br>65  | Pro        | Glu        | Phe        | Thr        | Ala<br>70  | Ser        | Met        | Glu        | Ser        | Lys<br>75  | Ile        | Cys        | Pro        | Phe        | Thr<br>80  |
| Ile        | Ala        | Ile        | Phe        | Leu<br>85  | Lys        | Tyr        | Ser        | Asn        | Asp<br>90  | Pro        | Val        | Val        | Ala        | Ser<br>95  | Leu        |
| Ala        | Gln        | Asp        | Ile<br>100 | Phe        | Lys        | Glu        | Leu        | Ser<br>105 | Gln        | Ile        | Glu        | Ala        | Cys<br>110 | Gln        | Gly        |
| Pro        | Met        | Gln<br>115 | Met        | Arg        | Leu        | Ile        | Pro<br>120 | Thr        | Leu        | Val        | Ser        | Ile<br>125 | Met        | Gln        | Ala        |
| Pro        | Ala<br>130 | Asp        | Lys        | Ile        | Pro        | Ala<br>135 | Gly        | Leu        | Cys        | Ala        | Thr<br>140 | Ala        | Ile        | Asp        | Ile        |
| Leu<br>145 | Thr        | Thr        | Val        | Val        | Arg<br>150 | Asn        | Thr        | Lys        | Pro        | Pro<br>155 | Leu        | Ser        | Gln        | Leu        | Leu<br>160 |
| Ile        | Cys        | Gln        | Ala        | Phe<br>165 | Pro        | Ala        | Val        | Ala        | Gln<br>170 | Cys        | Thr        | Leu        | His        | Thr<br>175 | Asp        |
| Asp        | Asn        | Ala        | Thr        | Met        | Gln        | Asn        | Gly        | Gly        | Glu        | Cys        | Leu        | Arg        | Ala        | Tyr        | Val        |

002221 56EE/960

| 180 |     |     |     |     |     |     | 185 |     |     |     |     | 190 |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ser | Val | Thr | Leu | Glu | Gln | Val | Ala | Gln | Trp | His | Asp | Glu | Gln | Gly | His |  |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |  |
| Asn | Gly | Leu | Trp | Tyr | Val | Met | Gln | Val | Val | Ser | Gln | Leu | Leu | Asp | Pro |  |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |  |
| Arg | Thr | Ser | Glu | Phe | Thr | Ala | Ala | Phe | Val | Gly | Ala | Phe | Val | Ser | Thr |  |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |  |
| Leu | Ile | Ser | Lys | Ala | Gly | Arg | Glu | Leu | Gly | Glu | Asn | Leu | Asp | Gln | Ile |  |
|     |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |  |
| Ser | Ser | Cys | His | Pro | Ser | Val | Lys | Met | Ala | Gly | Gly |     |     |     |     |  |
|     |     |     | 260 |     |     |     | 265 |     |     |     |     |     |     |     |     |  |

<210> 411  
 <211> 97  
 <212> PRT  
 <213> homo sapiens

<400> 411

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ile | Gly | Pro | Gln | Ala | Leu | Ser | Ala | Ile | Leu | His | Gly | Gly | Ile | Val |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ile | Cys | Val | Lys | Gly | Thr | Leu | Cys | His | Ser | Arg | Glu | Ser | Leu | Ala | Asp |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Glu | Lys | Leu | Gly | Lys | Gly | Arg | Leu | Cys | Ile | Ser | Tyr | Tyr | Cys | Cys | Gln |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Asp | Ile | Asn | Gly | Cys | Arg | Thr | Lys | Pro | Cys | Arg | Asn | Leu | Val | Cys | Trp |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Gly | Leu | His | Tyr | Ala | Asp | Gln | Ser | Gly | Asn | Gln | Pro | His | Leu | His | Trp |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Ala | Leu | Thr | Gly | Phe | Asn | Leu | Gly | Gln | Leu | Leu | Glu | Asp | Val | Leu | Ser |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |

Gln

<210> 412  
 <211> 77  
 <212> PRT  
 <213> homo sapiens

<400> 412

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Ala | Ile | Leu | Thr | Glu | Gly | Trp | His | Glu | Glu | Ile | Trp | Ser | Arg |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Phe | Ser | Pro | Ser | Ser | Arg | Pro | Ala | Leu | Glu | Met | Arg | Val | Glu | Thr | Lys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ala | Pro | Thr | Lys | Ala | Ala | Val | Asn | Ser | Glu | Val | Arg | Gly | Ser | Arg | Ser |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Trp | Leu | Thr | Thr | Cys | Ile | Thr | Tyr | His | Ser | Pro | Leu | Trp | Pro | Cys | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

Ser Cys His Trp Ala Thr Cys Ser Arg Val Thr Asp Thr  
65 70 75

<210> 413  
<211> 62  
<212> PRT  
<213> homo sapiens

<400> 413

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Gly | Phe | Ala | Ser | Ile | Pro | Pro | Arg | Ile | Ser | Gly | Ser | Pro | Ser | Ile |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | Leu | Ala | Phe | Tyr | Pro | His | Pro | Pro | Ser | Pro | Lys | Leu | Gly | Pro | Val |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | Leu | Cys | Ala | Arg | Glu | Thr | Pro | Lys | Phe | Arg | Arg | Lys | Ser | Ile | Phe |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Tyr | Arg | Gly | Gly | Phe | Ile | Leu | Asp | Gln | Lys | Asn | Lys | Lys | Asn |     |     |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

<210> 414  
<211> 65  
<212> PRT  
<213> homo sapiens

<400> 414

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Leu | Ile | Tyr | Asn | Tyr | Tyr | Cys | Tyr | Pro | Ser | Asp | Leu | Ser | Phe | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ala | Ile | Asp | Val | Ile | Ala | Ile | Ser | Arg | Ser | Ser | His | Asn | Val | Phe | Asn |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Pro | Ala | Leu | Ile | Leu | Met | Leu | Arg | Met | Glu | Phe | Leu | Thr | Ser | Ser | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Lys | Glu | Pro | Gln | Pro | Pro | Asn | Thr | Tyr | Thr | Tyr | Thr | Ser | Arg | Ile | Ala |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Lys |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 415  
<211> 94  
<212> PRT  
<213> homo sapiens

<400> 415

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asp | Ser | Leu | Pro | Phe | His | His | Val | Phe | Pro | Asp | Pro | His | Pro | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Phe | Trp | Leu | Phe | Thr | Arg | Ile | Arg | His | Leu | Arg | Ser | Trp | Gly | Gln | Cys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Tyr | Tyr | Val | Pro | Gly | Lys | Pro | Arg | Asn | Leu | Gly | Glu | Asn | Gln | Tyr | Phe |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Thr | Gly | Glu | Asp | Ser | Ser | Leu | Thr | Lys | Lys | Ile | Lys | Lys | Ile | Lys | Asn |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

00/22T" 5655/960

|           |     |     |     |           |           |     |     |     |           |           |     |     |     |     |           |
|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----|-----------|
| Thr<br>65 | Lys | Lys | Phe | Met       | Phe<br>70 | Leu | Tyr | Cys | Ile       | Pro<br>75 | Lys | Glu | Cys | Leu | Tyr<br>80 |
| Thr       | Val | Ile | Ile | Leu<br>85 | Lys       | Glu | Asn | Thr | Ser<br>90 | Met       | Leu | Asp | Ile |     |           |

<210> 416  
 <211> 83  
 <212> PRT  
 <213> homo sapiens

<400> 416

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Gly<br>1  | Arg       | Arg       | Asn       | Asp<br>5 | Gln       | Leu       | Asn       | Leu       | His<br>10 | Ile       | Pro       | Gln       | Ala       | Gly<br>15 | Pro       |
| Phe       | Ala       | Gly       | Pro<br>20 | Tyr      | Arg       | Leu       | Gly       | Trp<br>25 | Pro       | Leu       | Leu       | Ser       | Ser<br>30 | Gly       | Ile       |
| Arg       | Leu       | Pro<br>35 | Asp       | Trp      | Leu       | Val       | Leu<br>40 | His       | Val       | Ser       | Ile       | Lys<br>45 | Leu       | Lys       | Val       |
| Ile       | Pro<br>50 | Trp       | Pro       | Pro      | Pro       | Gly<br>55 | Glu       | Asn       | Gln       | Pro       | His<br>60 | Pro       | Ala       | Ser       | Trp       |
| Gly<br>65 | Gln       | Trp       | Gly       | Arg      | Asp<br>70 | Phe       | Gly       | Leu       | Ser       | Glu<br>75 | Gln       | Leu       | Leu       | Glu       | Ala<br>80 |
| Ala       | His       | Asp       |           |          |           |           |           |           |           |           |           |           |           |           |           |

<210> 417  
 <211> 93  
 <212> PRT  
 <213> homo sapiens

<400> 417

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Arg<br>1  | Arg       | Lys       | Ala       | Ser<br>5  | Ile       | Ile       | Ala       | Phe       | Lys<br>10 | Gly       | Ile       | Leu       | Leu       | Thr<br>15 | Leu       |
| Thr       | Gln       | Gly       | Val<br>20 | Gln       | Ser       | Ala       | Arg       | Glu<br>25 | Pro       | Ile       | Leu       | Ile       | Ser<br>30 | Ser       | Ser       |
| Lys       | Met       | Phe<br>35 | Leu       | Glu       | Glu       | Asn       | Pro<br>40 | Trp       | Asn       | Val       | Leu       | Lys<br>45 | Asp       | Val       | Ser       |
| Gly       | Val<br>50 | Arg       | Ser       | Ser       | Met       | Trp<br>55 | Leu       | Ala       | Lys       | Gly       | His<br>60 | Leu       | Tyr       | Leu       | Phe       |
| Gln<br>65 | Leu       | Glu       | Phe       | Ile       | Asn<br>70 | Ser       | Cys       | Ser       | Leu       | Val<br>75 | Ser       | Leu       | Gly       | Ala       | Glu<br>80 |
| Val       | Trp       | His       | Ile       | Phe<br>85 | Lys       | Pro       | Val       | His       | Ser<br>90 | Arg       | Ile       | Gln       |           |           |           |

<210> 418  
 <211> 96  
 <212> PRT  
 <213> homo sapiens

<400> 418

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Asn | Pro | His | Lys | Thr | Leu | Ser | Ala | Lys | Lys | Ala | Arg | Val | Ile |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

00673305-122700

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |  |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| 1         |           |           |           | 5         |           |           |           |           | 10        |           |           |           |           | 15        |           |  |
| Phe       | Phe       | Cys       | Ile<br>20 | Gln       | Asp       | Ser       | Thr       | Ala<br>25 | Asn       | Leu       | Val       | Phe       | Cys<br>30 | Tyr       | Lys       |  |
| Asn       | Leu       | Val<br>35 | Ser       | His       | Phe       | Leu       | Leu<br>40 | Lys       | Arg       | Thr       | Arg       | Ile<br>45 | Thr       | Gly       | Thr       |  |
| His       | Pro<br>50 | Gln       | Leu       | His       | Glu       | Thr<br>55 | Pro       | Ser       | Phe       | Leu       | Asn<br>60 | Glu       | His       | Glu       | Ser       |  |
| Ile<br>65 | Tyr       | Val       | His       | Pro       | Ser<br>70 | Thr       | His       | Met       | Lys       | Met<br>75 | Leu       | Cys       | Ser       | Ser       | Thr<br>80 |  |
| Gly       | Met       | Asp       | Gly       | Ile<br>85 | Arg       | Ile       | Lys       | Pro       | Ile<br>90 | Trp       | Lys       | Leu       | Lys       | Tyr<br>95 | Phe       |  |

<210> 419  
 <211> 68  
 <212> PRT  
 <213> homo sapiens

<400> 419

|           |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |  |
|-----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|--|
| Tyr<br>1  | Ser       | Phe       | Phe       | Phe<br>5 | Phe | Leu       | Tyr       | Gln       | Asn<br>10 | Asn | His       | Leu       | Pro       | Leu<br>15 | Phe |  |
| Phe       | Leu       | Glu       | Arg<br>20 | Glu      | Glu | Glu       | Ser       | Gly<br>25 | Glu       | Glu | Gly       | Lys       | Asn<br>30 | Ala       | Lys |  |
| Cys       | His       | Phe<br>35 | Glu       | Leu      | Leu | Val       | His<br>40 | His       | Thr       | Arg | Gly       | Ser<br>45 | Pro       | Leu       | Met |  |
| Ser       | Ala<br>50 | Ala       | Ser       | Val      | His | Arg<br>55 | Pro       | Gln       | Val       | Lys | Glu<br>60 | Arg       | Met       | Arg       | Ser |  |
| Ser<br>65 | Trp       | Thr       | Ser       |          |     |           |           |           |           |     |           |           |           |           |     |  |

<210> 420  
 <211> 60  
 <212> PRT  
 <213> homo sapiens

<400> 420

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |  |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|--|
| Lys<br>1 | Pro       | Ser       | Ile       | His<br>5 | Phe | Phe       | Phe       | Ser       | Cys<br>10 | Thr | Lys       | Thr       | Ile       | Ile<br>15 | Phe |  |
| Leu      | Tyr       | Phe       | Ser<br>20 | Trp      | Ser | Gly       | Lys       | Arg<br>25 | Arg       | Val | Glu       | Lys       | Lys<br>30 | Gly       | Arg |  |
| Met      | Gln       | Ser<br>35 | Val       | Thr      | Leu | Asn       | Phe<br>40 | Ser       | Phe       | Thr | Thr       | His<br>45 | Val       | Gly       | Val |  |
| His      | Ser<br>50 | Cys       | Gln       | Gln      | Pro | Pro<br>55 | Cys       | Thr       | Gly       | Pro | Arg<br>60 |           |           |           |     |  |

<210> 421  
 <211> 52  
 <212> PRT  
 <213> homo sapiens

09673395.122700

[illegible]

```
210> 422
211> 52
212> PRT
213> homo sapiens
```

[illegible]

<400> 423

```
<210> 424
<211> 79
<212> PRT
<213> homo sapiens
```

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Val<br>1 | Thr | Cys | Leu | Ser<br>5 | Leu | Tyr | Val | Glu | Thr<br>10 | Asn | Phe | Thr | Met | Ile<br>15 | Thr |
| Asp      | Leu | Cys | Asn | Ile      | Ser | Ser | Leu | Asn | Phe       | His | Thr | Ile | Leu | Lys       | Cys |

00673395.122700

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Leu | Leu | Gly | Lys | Leu | Thr | Pro | Phe | Cys | Ser | Lys | Gly | Ala | Leu | His | Leu |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Leu | Lys | Pro | Trp | Gly | His | Thr | Ser | Ser | Val | Ala | Ser | Glu | Gly | Gln | Ile |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Leu | Trp | Val | Val | Gly | Asp | Asn | Phe | Val | Leu | Thr | Tyr | Val | Ile | Leu |     |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     |     |  |

<210> 425  
 <211> 102  
 <212> PRT  
 <213> homo sapiens

<400> 425

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| His | Lys | Lys | Thr | Ser | Ser | Tyr | Ser | Gly | Val | Thr | Val | Cys | Ser | Tyr | Asp |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Ser | Ile | Ile | Arg | Leu | Lys | Ala | Gly | Glu | Ile | Cys | Val | Gln | Phe | Asn | Arg |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Thr | Gln | Leu | Lys | Gly | Arg | Gln | Val | Gly | Trp | Glu | Arg | Lys | Leu | Leu | Ser |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Gly | Gly | Ile | Arg | Gly | Asn | Gln | Ser | Lys | Thr | Lys | Phe | Tyr | Cys | Leu | Gln |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Phe | Asn | Ser | Ile | Ile | Ala | Ile | Met | Cys | Ser | Gly | Lys | His | Ile | Pro | Val |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Leu | Leu | Asp | Arg | Val | Ser | Phe | Pro | Phe | Ser | Gly | Thr | Lys | Met | Val | Glu |  |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |
| Gly | Ile | Ile | Asn | Pro | Thr |     |     |     |     |     |     |     |     |     |     |  |
|     |     |     | 100 |     |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 426  
 <211> 81  
 <212> PRT  
 <213> homo sapiens

<400> 426

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ser | Met | Pro | Phe | Gln | Phe | Gly | Thr | Gln | Pro | Arg | Arg | Phe | Pro | Val | Glu |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Gly | Gly | Asp | Ser | Ser | Ile | Glu | Leu | Glu | Pro | Gly | Leu | Ser | Ser | Ser | Ala |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Ala | Cys | Asn | Gly | Lys | Glu | Met | Ser | Pro | Thr | Arg | Gln | Leu | Arg | Arg | Cys |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Pro | Gly | Ser | His | Cys | Leu | Thr | Ile | Thr | Asp | Val | Pro | Val | Thr | Val | Tyr |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Ala | Thr | Thr | Arg | Lys | Pro | Pro | Ala | Gln | Ser | Ser | Lys | Glu | Met | His | Pro |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |

Lys



<210> 427  
 <211> 62  
 <212> PRT  
 <213> homo sapiens

<400> 427

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Gly<br>1 | Arg       | Ala       | Ser       | Ala<br>5 | Leu | Ala       | Cys       | His       | Arg<br>10 | Tyr | Arg       | Ser       | Asp       | Trp<br>15 | Ala |
| Ser      | Gly       | Leu       | Tyr<br>20 | Ile      | Leu | Ala       | Ala       | Leu<br>25 | Ser       | Thr | Ser       | Ser       | Ser<br>30 | Ile       | Gly |
| Ser      | Ser       | Gly<br>35 | Gly       | Arg      | Gly | Asn       | Trp<br>40 | Gln       | Gln       | Val | Gly       | Asn<br>45 | Tyr       | Val       | Lys |
| Glu      | Ser<br>50 | Pro       | Asp       | Val      | Ile | Ile<br>55 | Ser       | Gly       | Cys       | His | Arg<br>60 | Asn       | Ile       |           |     |

<210> 428  
 <211> 100  
 <212> PRT  
 <213> homo sapiens

<400> 428

|           |           |           |            |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Arg<br>1  | Glu       | His       | Gln        | Leu<br>5  | Leu       | Ser       | Gly       | Asn       | Asp<br>10 | Phe       | Gln       | Gly       | Thr       | Ser<br>15 | Gly       |
| Val       | Ala       | Trp       | Leu<br>20  | Val       | Thr       | Ser       | Pro       | Ser<br>25 | His       | Tyr       | Arg       | Gln       | His<br>30 | Trp       | Ser       |
| Ser       | Ala       | Gln<br>35 | Val        | Pro       | Ala       | Gln       | Leu<br>40 | Lys       | Asn       | Leu       | Leu       | Leu<br>45 | Pro       | Leu       | Glu       |
| Thr       | Ser<br>50 | Leu       | Ala        | Gly       | Phe       | Gln<br>55 | Ile       | Glu       | Lys       | Ala       | Tyr<br>60 | Phe       | Thr       | Glu       | Asn       |
| Gln<br>65 | Lys       | Arg       | Leu        | Ser       | Leu<br>70 | Ile       | Pro       | Val       | Glu       | Val<br>75 | Asn       | Lys       | Ser       | Met       | Leu<br>80 |
| Ser       | Thr       | Gly       | Leu        | Ser<br>85 | Thr       | Glu       | Gly       | Trp       | Asn<br>90 | Cys       | Gln       | Arg       | Asn       | Asp<br>95 | Asp       |
| Gln       | Met       | Phe       | Arg<br>100 |           |           |           |           |           |           |           |           |           |           |           |           |

<210> 429  
 <211> 40  
 <212> PRT  
 <213> homo sapiens

<400> 429

|          |     |           |           |          |     |     |           |           |           |     |     |     |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Asn<br>1 | Ser | His       | Leu       | Asn<br>5 | Val | Thr | Leu       | Ile       | Ile<br>10 | Ile | Met | Leu | Ile       | Phe<br>15 | Ser |
| Ile      | Ser | Tyr       | Arg<br>20 | Asn      | Gln | Ser | Leu       | Leu<br>25 | Lys       | Leu | His | Arg | Gly<br>30 | Leu       | Lys |
| Asn      | Val | Tyr<br>35 | His       | Ser      | Ile | Phe | Ile<br>40 |           |           |     |     |     |           |           |     |

00673395-12700

<210> 430  
 <211> 31  
 <212> PRT  
 <213> homo sapiens

<400> 430

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Ile | Gly | Tyr | Lys | Gly | Arg | Tyr | Leu | Asn | Ser | Ser | Asn | Asn | Gly |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Tyr | Asn | Pro | Phe | Phe | His | Asn | His | Leu | Gly | Cys | Phe | Lys | Ala | Ile |     |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |

<210> 431  
 <211> 53  
 <212> PRT  
 <213> homo sapiens

<400> 431

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Ile | Pro | Ile | Arg | Asp | Ala | Lys | Asn | Gln | His | Asn | Tyr | Tyr | Gln |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Cys | His | Ile | Gln | Val | Gly | Ile | Leu | Pro | Asn | Thr | Thr | Ile | Lys | Gly | Arg |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ile | Lys | Leu | Asp | Asn | Lys | Ile | Lys | Lys | Tyr | Lys | Ala | Phe | Lys | Asn | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Thr | His | His | Leu | Lys |     |     |     |     |     |     |     |     |     |     |     |
|     | 50  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 432  
 <211> 31  
 <212> PRT  
 <213> homo sapiens

<400> 432

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ala | Leu | Lys | His | Pro | Lys | Trp | Leu | Trp | Lys | Lys | Gly | Leu | Tyr | Pro |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | Phe | Glu | Leu | Phe | Arg | Tyr | Leu | Pro | Leu | Tyr | Pro | Ile | Pro | Pro |     |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |

<210> 433  
 <211> 85  
 <212> PRT  
 <213> homo sapiens

<400> 433

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Asn | Ile | Phe | Gln | Trp | Gly | Pro | Ser | Glu | His | Thr | Cys | Trp | Thr | Val |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Gln | Thr | Ile | Ser | Ser | Pro | Glu | Gly | Lys | Tyr | Phe | Cys | Ile | Arg | Gly | Asn |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ser | Val | Leu | Glu | Arg | Asn | Met | Phe | Phe | Ile | Ser | Gln | Ile | Lys | Thr | Leu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Asn | Gly | Lys | Leu | Ala | Ser | Asn | Phe | Phe | Lys | Tyr | Ser | Ile | Phe | Phe |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

002221" 56E/960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Leu | Val | Val | Thr | Gly | Phe | Tyr | Arg | Ser | Ser | Tyr | Thr | Val | Cys |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |

|     |     |     |     |     |
|-----|-----|-----|-----|-----|
| Phe | Asn | Ser | Gly | Pro |
|     |     |     |     | 85  |

<210> 434  
 <211> 81  
 <212> PRT  
 <213> homo sapiens

<400> 434

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Ile | Arg | Glu | Ile | Asn | Gln | Val | Phe | Pro | Leu | Ile | Tyr | Asp | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ile | Tyr | Phe | Ser | Gly | Gly | Leu | Gln | Ser | Thr | Pro | Val | Gly | Arg | Cys | Lys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Pro | Tyr | Leu | Leu | Gln | Lys | Ala | Asn | Thr | Phe | Val | Ser | Glu | Glu | Thr | Gln |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Phe | Trp | Arg | Gly | Ile | Cys | Ser | Leu | Tyr | Leu | Lys | Ser | Lys | Leu | Ser | Leu |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Met | Val | Asn | Trp | Leu | Leu | Ile | Phe | Leu | Ser | Thr | Val | Phe | Phe | Phe | Pro |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |

Leu

<210> 435  
 <211> 95  
 <212> PRT  
 <213> homo sapiens

<400> 435

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Lys | Ser | Ile | Cys | Leu | Leu | Glu | Lys | Ile | Trp | Phe | Ala | Pro | Ser | Asn |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg | Cys | Ala | Leu | Lys | Ala | Pro | Thr | Glu | Ile | Tyr | Cys | Ile | Ile | Asp | Glu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gly | Lys | Asp | Leu | Val | Asn | Phe | Ser | Tyr | Gln | Lys | Leu | Val | Phe | Arg | Thr |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Cys | Pro | Thr | Trp | Leu | Pro | Gly | Ala | Gln | Gly | Phe | Phe | Ser | Glu | Ile |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Val | Leu | Arg | Asp | Pro | Gln | Thr | Cys | Ser | Pro | Ser | Pro | Gly | Ala | Thr | Cys |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Ala | Ser | Ser | Pro | Arg | Arg | Gln | Ala | Val | Arg | Ser | Met | Arg | Leu | Ser |     |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |

<210> 436  
 <211> 81  
 <212> PRT  
 <213> homo sapiens

<400> 436

002221"5632960

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ser<br>1  | Cys       | Ala       | Phe       | Leu<br>5 | Leu       | Leu       | Trp       | Gly       | His<br>10 | Ser       | Gly       | Pro       | Thr       | Trp<br>15 | Ala       |
| Ser       | Met       | Asp       | Pro<br>20 | Gly      | Leu       | Glu       | Gln       | Ala<br>25 | His       | Leu       | His       | Leu       | Phe<br>30 | His       | Leu       |
| Arg       | Gln       | Cys<br>35 | Gly       | Ser      | Arg       | Cys       | Gln<br>40 | Glu       | Gly       | Leu       | Thr       | Ser<br>45 | Gly       | Pro       | Ser       |
| Arg       | Phe<br>50 | Leu       | Cys       | Ala      | Arg       | Asn<br>55 | Glu       | Arg       | Pro       | Gly       | Pro<br>60 | Ile       | Leu       | Pro       | Pro       |
| Arg<br>65 | Leu       | Asp       | Pro       | Glu      | Val<br>70 | Arg       | Ala       | Gly       | Gln       | Pro<br>75 | Ser       | Arg       | Lys       | His       | Thr<br>80 |

Val

<210> 437  
 <211> 94  
 <212> PRT  
 <213> homo sapiens

<400> 437

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ser<br>1  | Arg       | Trp       | Asn       | Asp<br>5  | Ser       | His       | Pro       | Leu       | Leu<br>10 | Ile       | Ser       | Pro       | Leu       | Thr<br>15 | Ser       |
| Leu       | Lys       | Leu       | Leu<br>20 | Ser       | Ser       | Ser       | Lys       | Ser<br>25 | His       | Cys       | Gln       | Leu       | Pro<br>30 | Tyr       | Val       |
| Val       | Leu       | Gly<br>35 | Pro       | Arg       | Glu       | Pro       | Trp<br>40 | Asn       | Leu       | Ala       | Pro       | Trp<br>45 | Gly       | Gly       | Leu       |
| Ile       | Pro<br>50 | Ala       | Arg       | Glu       | His       | Ser<br>55 | Cys       | Phe       | Ser       | Arg       | Asp<br>60 | Thr       | Val       | Ala       | Cys       |
| Met<br>65 | Gly       | Gln       | His       | Gly       | Pro<br>70 | Trp       | Ala       | Asp       | His       | Val<br>75 | His       | Ser       | Cys       | Phe       | Ser<br>80 |
| Gly       | Asp       | Thr       | Val       | Gly<br>85 | Pro       | His       | Gly       | Pro       | Ala<br>90 | Trp       | Thr       | Leu       | Gly       |           |           |

<210> 438  
 <211> 91  
 <212> PRT  
 <213> homo sapiens

<400> 438

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| His<br>1  | Leu       | Glu       | Pro       | His<br>5 | Cys       | Leu       | Arg       | Trp       | Lys<br>10 | Arg       | Trp       | Arg       | Cys       | Ala<br>15 | Cys       |
| Ser       | Ser       | Pro       | Gly<br>20 | Ser      | Met       | Leu       | Ala       | His<br>25 | Val       | Gly       | Pro       | Leu       | Cys<br>30 | Pro       | Gln       |
| Arg       | Ser       | Arg<br>35 | Asn       | Ala      | His       | Asp       | Gln<br>40 | Pro       | Arg       | Val       | His       | Ala<br>45 | Gly       | Pro       | Cys       |
| Arg       | Pro<br>50 | Leu       | Cys       | Pro      | Leu       | Arg<br>55 | Ser       | Arg       | Asn       | Ala       | Leu<br>60 | Val       | Pro       | Glu       | Leu       |
| Asn<br>65 | His       | Pro       | Arg       | Val      | Pro<br>70 | Gly       | Ser       | Lys       | Ala       | Pro<br>75 | Trp       | Asp       | Pro       | Glu       | Pro<br>80 |

002221-56EE2960

|     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Thr | Glu | Val | Gly | Asn | Gly | Ser | Leu | Met | Ser |
|     |     |     |     | 85  |     |     |     |     | 90  |     |

<210> 439  
 <211> 456  
 <212> PRT  
 <213> homo sapiens

<400> 439

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Lys | Thr | His | Lys | Val | Asp | Leu | Gly | Leu | Pro | Glu | Lys | Lys | Lys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Lys | Lys | Lys | Val | Val | Lys | Glu | Pro | Glu | Thr | Arg | Tyr | Ser | Val | Leu | Asn |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Asn | Asp | Asp | Tyr | Phe | Ala | Asp | Val | Ser | Pro | Leu | Arg | Ala | Thr | Ser | Pro |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Lys | Ser | Val | Ala | His | Gly | Gln | Ala | Pro | Glu | Met | Pro | Leu | Val | Lys |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Lys | Lys | Lys | Lys | Lys | Lys | Lys | Gly | Val | Ser | Thr | Leu | Cys | Glu | Glu | His |
|     | 65  |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Val | Glu | Pro | Glu | Thr | Thr | Leu | Pro | Ala | Arg | Arg | Thr | Glu | Lys | Ser | Pro |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Ser | Leu | Arg | Lys | Gln | Val | Phe | Gly | His | Leu | Glu | Phe | Leu | Ser | Gly | Glu |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Lys | Lys | Asn | Lys | Lys | Ser | Pro | Leu | Ala | Met | Ser | His | Ala | Ser | Gly | Val |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Lys | Thr | Ser | Pro | Asp | Pro | Arg | Gln | Gly | Glu | Glu | Glu | Thr | Arg | Val | Gly |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Lys | Lys | Leu | Lys | Lys | His | Lys | Lys | Glu | Lys | Lys | Gly | Ala | Gln | Asp | Pro |
|     |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Thr | Ala | Phe | Ser | Val | Gln | Asp | Pro | Trp | Phe | Cys | Glu | Ala | Arg | Glu | Ala |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Arg | Asp | Val | Gly | Asp | Thr | Cys | Ser | Val | Gly | Lys | Lys | Asp | Glu | Glu | Gln |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Ala | Ala | Leu | Gly | Gln | Lys | Arg | Lys | Arg | Lys | Ser | Pro | Arg | Glu | His | Asn |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Gly | Lys | Val | Lys | Lys | Lys | Lys | Lys | Ile | His | Gln | Glu | Gly | Asp | Ala | Leu |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Pro | Gly | His | Ser | Lys | Pro | Ser | Arg | Ser | Met | Glu | Ser | Ser | Pro | Arg | Lys |
|     |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |
| Gly | Ser | Lys | Lys | Lys | Pro | Val | Lys | Val | Glu | Ala | Pro | Glu | Tyr | Ile | Pro |
|     |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |
| Ile | Ser | Asp | Asp | Pro | Lys | Ala | Ser | Ala | Lys | Lys | Lys | Met | Lys | Ser | Lys |
|     |     |     | 260 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |
| Lys | Lys | Val | Glu | Gln | Pro | Val | Ile | Glu | Glu | Pro | Ala | Leu | Lys | Arg | Lys |

09673395-122700

002227 5652960

| 275                |     |     |     |     |     |     | 280 |     |     |     |     | 285 |     |     |     |  |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Lys                | Lys | Lys | Glu | Arg | Glu | Ser | Gly | Val | Ala | Gly | Asp | Pro | Trp | Lys | Glu |  |
|                    | 290 |     |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |  |
| Glu                | Thr | Asp | Thr | Asp | Leu | Glu | Val | Val | Leu | Glu | Lys | Lys | Gly | Asn | Met |  |
| 305                |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |  |
| Asp                | Glu | Ala | His | Ile | Asp | Gln | Val | Arg | Arg | Lys | Ala | Leu | Gln | Glu | Glu |  |
|                    |     |     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |  |
| Ile                | Asp | Arg | Glu | Ser | Gly | Lys | Thr | Glu | Ala | Ser | Glu | Thr | Arg | Lys | Trp |  |
|                    |     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |  |
| Thr                | Gly | Thr | Gln | Phe | Gly | Gln | Trp | Asp | Thr | Ala | Gly | Phe | Glu | Asn | Glu |  |
|                    |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |  |
| Asp                | Gln | Lys | Leu | Lys | Phe | Leu | Arg | Leu | Met | Gly | Gly | Phe | Lys | Asn | Leu |  |
|                    | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |  |
| Ser                | Pro | Ser | Phe | Ser | Arg | Pro | Ala | Ser | Thr | Ile | Ala | Arg | Pro | Asn | Met |  |
| 385                |     |     |     |     | 390 |     |     |     |     | 395 |     |     |     |     | 400 |  |
| Ala                | Leu | Gly | Lys | Lys | Ala | Ala | Asp | Ser | Leu | Gln | Gln | Asn | Leu | Gln | Arg |  |
|                    |     |     |     | 405 |     |     |     |     | 410 |     |     |     |     | 415 |     |  |
| Asp                | Tyr | Asp | Arg | Ala | Met | Ser | Trp | Lys | Tyr | Ser | Arg | Gly | Ala | Gly | Leu |  |
|                    |     |     | 420 |     |     |     |     | 425 |     |     |     |     | 430 |     |     |  |
| Gly                | Phe | Ser | Thr | Ala | Pro | Asn | Lys | Ile | Phe | Tyr | Ile | Asp | Arg | Asn | Ala |  |
|                    |     | 435 |     |     |     |     | 440 |     |     |     |     | 445 |     |     |     |  |
| Ser                | Lys | Ser | Val | Lys | Leu | Glu | Asp |     |     |     |     |     |     |     |     |  |
|                    | 450 |     |     |     |     | 455 |     |     |     |     |     |     |     |     |     |  |
| <210> 440          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <211> 125          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <212> PRT          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <213> homo sapiens |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <400> 440          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| Val                | Arg | Val | Cys | Phe | Leu | Leu | Pro | Arg | Val | Ser | Cys | Tyr | Pro | Thr | Leu |  |
| 1                  |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Ser                | Leu | Leu | Leu | Phe | Leu | Pro | Phe | Gln | Ser | Trp | Leu | Leu | Asp | Asp | Trp |  |
|                    |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Leu                | Leu | Tyr | Leu | Leu | Phe | Gly | Leu | His | Leu | Phe | Leu | Cys | Gly | Gly | Leu |  |
|                    |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Arg                | Val | Ile | Thr | Tyr | Gly | Asp | Val | Phe | Arg | Ser | Leu | Asn | Phe | Asp | Trp |  |
|                    | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Leu                | Leu | Phe | Thr | Ser | Phe | Pro | Arg | Ala | Ala | Leu | His | Gly | Pro | Gly | Gly |  |
| 65                 |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Leu                | Gly | Val | Ala | Trp | Glu | Gly | Ile | Ser | Leu | Leu | Val | Asp | Phe | Phe | Phe |  |
|                    |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |
| Leu                | Leu | His | Leu | Pro | Ile | Val | Phe | Ser | Gly | Ala | Leu | Pro | Leu | Pro | Phe |  |
|                    |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |

002221" 56552960

|                    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Leu                | Pro | Gln | Gly | Cys | Leu | Phe | Leu | Ile | Leu | Leu | Pro | His |     |     |     |  |
|                    |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |
| <210> 441          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <211> 381          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <212> PRT          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <213> homo sapiens |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <400> 441          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| Ser                | Arg | Cys | Arg | Phe | Cys | Cys | Arg | Leu | Ser | Ala | Ala | Phe | Leu | Pro | Arg |  |
| 1                  |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Ala                | Met | Leu | Gly | Leu | Ala | Ile | Val | Leu | Ala | Gly | Arg | Leu | Asn | Glu | Gly |  |
|                    |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Asp                | Arg | Phe | Leu | Lys | Pro | Pro | Ile | Ser | Leu | Arg | Asn | Phe | Ser | Phe | Trp |  |
|                    |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Ser                | Ser | Phe | Ser | Lys | Pro | Ala | Val | Ser | His | Trp | Pro | Asn | Trp | Val | Pro |  |
|                    | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Val                | His | Phe | Leu | Val | Ser | Glu | Ala | Ser | Val | Leu | Pro | Asp | Ser | Arg | Ser |  |
| 65                 |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Ile                | Ser | Ser | Cys | Lys | Ala | Phe | Arg | Leu | Thr | Trp | Ser | Met | Cys | Ala | Ser |  |
|                    |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |
| Ser                | Met | Leu | Pro | Phe | Phe | Ser | Asn | Thr | Thr | Ser | Lys | Ser | Val | Ser | Val |  |
|                    |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |
| Ser                | Ser | Phe | Gln | Gly | Ser | Pro | Ala | Thr | Pro | Leu | Ser | Leu | Ser | Phe | Phe |  |
|                    |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |
| Phe                | Phe | Leu | Phe | Arg | Ala | Gly | Ser | Ser | Met | Thr | Gly | Cys | Ser | Thr | Phe |  |
|                    | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |  |
| Phe                | Leu | Asp | Phe | Ile | Phe | Phe | Phe | Ala | Glu | Ala | Leu | Gly | Ser | Ser | Leu |  |
| 145                |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |  |
| Met                | Gly | Met | Tyr | Ser | Gly | Ala | Ser | Thr | Leu | Thr | Gly | Phe | Phe | Leu | Leu |  |
|                    |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |  |
| Pro                | Phe | Leu | Gly | Leu | Leu | Ser | Met | Asp | Leu | Glu | Gly | Leu | Glu | Trp | Pro |  |
|                    |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |  |
| Gly                | Arg | Ala | Ser | Pro | Ser | Trp | Trp | Ile | Phe | Phe | Phe | Phe | Phe | Thr | Phe |  |
|                    |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |  |
| Pro                | Leu | Cys | Ser | Leu | Gly | Leu | Phe | Arg | Phe | Arg | Phe | Cys | Pro | Lys | Ala |  |
|                    | 210 |     |     |     |     | 215 |     |     |     |     |     | 220 |     |     |     |  |
| Ala                | Cys | Ser | Ser | Ser | Phe | Phe | Pro | Thr | Glu | Gln | Val | Ser | Pro | Thr | Ser |  |
| 225                |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |  |
| Leu                | Ala | Ser | Leu | Ala | Ser | Gln | Asn | Gln | Gly | Ser | Trp | Thr | Glu | Lys | Ala |  |
|                    |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |  |
| Val                | Gly | Ser | Trp | Ala | Pro | Phe | Phe | Ser | Phe | Leu | Cys | Phe | Leu | Ser | Phe |  |
|                    |     |     | 260 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |  |
| Leu                | Pro | Thr | Leu | Val | Ser | Ser | Ser | Pro | Cys | Leu | Gly | Ser | Gly | Glu | Val |  |
|                    |     | 275 |     |     |     |     | 280 |     |     |     |     | 285 |     |     |     |  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Phe | Thr | Pro | Glu | Ala | Trp | Asp | Met | Ala | Arg | Gly | Asp | Phe | Leu | Phe | Phe |  |
|     | 290 |     |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |  |
| Phe | Ser | Pro | Leu | Arg | Asn | Ser | Lys | Trp | Pro | Asn | Thr | Cys | Phe | Leu | Arg |  |
| 305 |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |  |
| Leu | Gly | Asp | Phe | Ser | Val | Arg | Leu | Ala | Gly | Ser | Val | Val | Ser | Gly | Ser |  |
|     |     |     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |  |
| Thr | Cys | Ser | Ser | Gln | Arg | Val | Leu | Thr | Pro | Phe | Phe | Phe | Phe | Phe | Phe |  |
|     |     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |  |
| Phe | Phe | Thr | Arg | Gly | Ile | Ser | Gly | Ala | Cys | Pro | Trp | Ala | Thr | Leu | Leu |  |
|     |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |  |
| Glu | Gly | Asp | Val | Ala | Leu | Lys | Gly | Glu | Thr | Ser | Ala | Lys |     |     |     |  |
|     | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |  |

<210> 442  
 <211> 43  
 <212> PRT  
 <213> homo sapiens

<400> 442

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Asp | His | His | Asn | Lys | Leu | Ser | Leu | Gln | Ser | Gln | Thr | Tyr | Tyr | Ile | Leu |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Leu | Ser | Val | Asn | Gly | Glu | Lys | Ile | Ser | Pro | Tyr | Val | Leu | Trp | Val | Lys |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Cys | Cys | Asn | Arg | Leu | Gly | Leu | Ser | Asn | Leu | Pro |     |     |     |     |     |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     |     |     |     |     |  |

<210> 443  
 <211> 45  
 <212> PRT  
 <213> homo sapiens

<400> 443

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Met | Val | Ile | Ser | Ile | Phe | Pro | Pro | Leu | Leu | Tyr | Lys | Leu | Ile | Phe | Thr |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| His | Leu | Leu | Leu | Tyr | Lys | Leu | Thr | Phe | Ile | Asn | Thr | Asn | Lys | Arg | Leu |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Val | Leu | Ser | Gln | Phe | Ile | Cys | His | Glu | Pro | Arg | Asn | Asn |     |     |     |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |

<210> 444  
 <211> 40  
 <212> PRT  
 <213> homo sapiens

<400> 444

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Gly | Lys | Pro | Lys | Asn | Cys | Cys | Asp | Phe | Phe | Gln | Gly | Lys | Leu | Asp | Asn |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Pro | Asn | Leu | Leu | Gln | His | Phe | Thr | His | Lys | Thr | Tyr | Gly | Leu | Ile | Phe |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |

00/222T"56EE2960



|     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Leu | Thr | Asp | Ser | Ser | Ile |
|     |     | 35  |     |     |     |     | 40  |

<210> 445  
 <211> 78  
 <212> PRT  
 <213> homo sapiens

<400> 445

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Val | Gly | Gly | Gly | Ala | Leu | Arg | Ser | Ala | Ala | Leu | Pro | Trp | Arg | Thr |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | Pro | Leu | Thr | Ser | Thr | Cys | Ser | Arg | Cys | Thr | Lys | Pro | Ser | Thr | Ala |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Glu | Met | Glu | His | Leu | Val | Gln | Ser | Trp | Cys | Leu | Leu | Asn | Ile | Leu | Met |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Leu | Gln | Thr | His | Asp | Phe | Lys | Trp | Pro | Leu | Gln | Arg | Arg | Ser | Val | Asn |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Lys | Ser | Trp | Asn | Pro | Leu | Met | Met | Lys | Cys | Leu | Gln | Leu | Ile |     |     |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     |     |

<210> 446  
 <211> 125  
 <212> PRT  
 <213> homo sapiens

<400> 446

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Arg | Arg | Arg | Gly | Trp | Arg | Ser | Pro | Phe | Gly | Gly | Ala | Pro | Met |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ala | His | Ile | Thr | Ile | Asn | Gln | Tyr | Leu | Gln | Gln | Val | Tyr | Glu | Ala | Ile |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Asp | Ser | Arg | Asp | Gly | Ala | Ser | Cys | Ala | Glu | Leu | Val | Ser | Phe | Lys | His |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Pro | His | Val | Ala | Asn | Pro | Arg | Leu | Gln | Met | Ala | Ser | Pro | Glu | Glu | Lys |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Cys | Gln | Gln | Val | Leu | Glu | Pro | Pro | Tyr | Asp | Glu | Met | Phe | Ala | Ala | His |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Leu | Arg | Cys | Thr | Tyr | Ala | Val | Gly | Asn | His | Asp | Phe | Ile | Glu | Ala | Tyr |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Lys | Cys | Gln | Thr | Val | Ile | Val | Gln | Ser | Phe | Leu | Arg | Ala | Phe | Gln | Ala |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| His | Lys | Glu | Glu | Asn | Trp | Ala | Leu | Leu | Ser | Cys | Met | Gln |     |     |     |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |

<210> 447  
 <211> 80  
 <212> PRT  
 <213> homo sapiens

<400> 447

004227" 56EE2960

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Met<br>1  | Ser       | Cys       | Lys       | His<br>5 | Phe       | Ile       | Ile       | Arg       | Gly<br>10 | Phe       | Gln       | Asp       | Leu       | Leu<br>15 | Thr       |
| Leu       | Leu       | Leu       | Trp<br>20 | Arg      | Gly       | His       | Leu       | Lys<br>25 | Ser       | Trp       | Val       | Cys       | Asn<br>30 | Met       | Arg       |
| Met       | Phe       | Lys<br>35 | Arg       | His      | Gln       | Leu       | Cys<br>40 | Thr       | Arg       | Cys       | Ser       | Ile<br>45 | Ser       | Ala       | Val       |
| Asp       | Gly<br>50 | Phe       | Val       | His      | Leu       | Leu<br>55 | Gln       | Val       | Leu       | Val       | Asn<br>60 | Gly       | Asn       | Val       | Arg       |
| His<br>65 | Gly       | Ser       | Ala       | Ala      | Glu<br>70 | Arg       | Arg       | Ala       | Pro       | Pro<br>75 | Pro       | Thr       | Pro       | Gln       | Ala<br>80 |

<210> 448  
 <211> 67  
 <212> PRT  
 <213> homo sapiens

<400> 448

|           |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Arg<br>1  | Ser       | Arg       | Gly       | Phe<br>5 | Ser | Cys       | Val       | Gln       | Thr<br>10 | Pro | Cys       | His       | Phe       | Arg<br>15 | Glu |
| Val       | Thr       | Gln       | Ala<br>20 | Cys      | Val | Ile       | Ser       | Leu<br>25 | Trp       | Gln | Gln       | Val       | Gly<br>30 | Gly       | Leu |
| Pro       | Gln       | Gly<br>35 | Arg       | Arg      | Trp | Pro       | Glu<br>40 | Met       | Cys       | Phe | Arg       | Ser<br>45 | Leu       | Thr       | His |
| His       | Ser<br>50 | Leu       | His       | Thr      | Arg | Arg<br>55 | Glu       | His       | His       | Ser | Trp<br>60 | Ser       | Ile       | Leu       | Arg |
| Met<br>65 | Glu       | Ile       |           |          |     |           |           |           |           |     |           |           |           |           |     |

<210> 449  
 <211> 60  
 <212> PRT  
 <213> homo sapiens

<400> 449

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Pro<br>1 | Ile       | Thr       | Pro       | Tyr<br>5 | Thr | His       | Asp       | Val       | Asn<br>10 | Thr | Thr       | Pro       | Gly       | Ala<br>15 | Phe |
| Ser      | Glu       | Trp       | Arg<br>20 | Phe      | Glu | Phe       | His       | Val<br>25 | Ala       | Ala | Ser       | His       | Thr<br>30 | Gln       | Thr |
| Cys      | His       | His<br>35 | Ser       | Pro      | His | Thr       | His<br>40 | Ser       | Arg       | His | Ser       | Thr<br>45 | Ala       | Met       | Ser |
| Gln      | Lys<br>50 | Lys       | Phe       | Leu      | Val | Ser<br>55 | Asp       | Leu       | Lys       | Val | Leu<br>60 |           |           |           |     |

<210> 450  
 <211> 67  
 <212> PRT  
 <213> homo sapiens

<400> 450

09673395-122700



<210> 453  
 <211> 59  
 <212> PRT  
 <213> homo sapiens

<400> 453

|          |           |           |           |          |     |           |           |           |           |     |     |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Phe<br>1 | Asp       | Ser       | Phe       | Ser<br>5 | Ser | Phe       | Lys       | Val       | Gly<br>10 | Lys | His | Ser       | Lys       | Ser<br>15 | Ala |
| Phe      | Leu       | Phe       | Met<br>20 | Leu      | Phe | Ile       | His       | Leu<br>25 | Ser       | Ser | Ser | Ser       | Ile<br>30 | Ser       | Ile |
| Ser      | Ile       | Thr<br>35 | Glu       | Gly      | Val | Ser       | Ser<br>40 | Ser       | Lys       | Ile | Gly | Thr<br>45 | Phe       | Thr       | Phe |
| Ser      | Leu<br>50 | Pro       | Ser       | Ser      | Tyr | Val<br>55 | Cys       | Lys       | Ala       | Leu |     |           |           |           |     |

<210> 454  
 <211> 107  
 <212> PRT  
 <213> homo sapiens

<400> 454

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pro<br>1  | Ile       | Thr       | Thr        | Cys<br>5  | Ser       | Leu       | Gly       | Asp        | Pro<br>10 | Gly       | Lys       | Asp       | Lys       | Tyr<br>15 | Thr       |
| Cys       | Thr       | His       | Arg<br>20  | Gly       | Arg       | Glu       | Arg       | Cys<br>25  | Val       | Gln       | Arg       | Ile       | Cys<br>30 | Ile       | Asn       |
| Ile       | Leu       | Phe<br>35 | Ser        | His       | Pro       | Asp       | Met<br>40 | Arg        | Ser       | Gln       | Cys       | Cys<br>45 | Met       | Met       | Lys       |
| Arg       | Trp<br>50 | Tyr       | Asp        | Ser       | Thr       | Tyr<br>55 | Val       | Pro        | Ile       | Val       | Leu<br>60 | Leu       | Phe       | Leu       | Tyr       |
| Phe<br>65 | Leu       | Phe       | Arg        | Ser       | Phe<br>70 | Thr       | Ile       | Gly        | Arg       | Phe<br>75 | Gln       | Lys       | His       | Ser       | Phe<br>80 |
| His       | His       | His       | Leu        | Glu<br>85 | Met       | Val       | Cys       | Leu        | Asn<br>90 | Gly       | Asp       | Asn       | Ser       | Arg<br>95 | Ser       |
| Cys       | Ser       | Ile       | Ser<br>100 | Ser       | Arg       | His       | Gly       | Leu<br>105 | Leu       | Ile       |           |           |           |           |           |

<210> 455  
 <211> 73  
 <212> PRT  
 <213> homo sapiens

<400> 455

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Arg<br>1 | Arg | Gly       | Val       | Ser<br>5 | Phe | Leu | Leu       | Ser       | Arg<br>10 | Gln | Lys | Trp       | Tyr       | His<br>15 | Tyr |
| Val      | Ala | Ala       | Leu<br>20 | Gln      | Ser | Pro | Arg       | Ala<br>25 | Arg       | Ser | Leu | Glu       | Asn<br>30 | His       | Leu |
| Leu      | Ser | Arg<br>35 | Phe       | Phe      | Phe | Phe | Leu<br>40 | Arg       | Val       | Gly | Val | Ser<br>45 | Leu       | Cys       | Cys |

09673395-122700

Pro Lys Thr Arg Pro Gly Asn Cys Trp Gly Ala Lys Gly Ile Ala Pro  
50 55 60

Val Pro Gln Ala Ser Arg Val Gly Arg  
65 70

<210> 456  
<211> 67  
<212> PRT  
<213> homo sapiens

<400> 456

Ser Trp Gly Asn Ile Val Arg Leu Leu Pro Ser Lys Lys Lys Lys Asn  
1 5 10 15  
Ala Lys Glu Gly Asp Ser Leu Glu Ser Glu Leu Trp Glu Ile Gly Glu  
20 25 30  
Arg Gln His Asn Asp Thr Ile Ser Ala Tyr Leu Glu Gly Lys Lys Leu  
35 40 45  
Leu Ser Phe Ser Cys Met Val Thr Val Ile Ser Ser Arg Lys Asp Ile  
50 55 60  
Ser Lys Glu  
65

<210> 457  
<211> 81  
<212> PRT  
<213> homo sapiens

<400> 457

Asp Gln Pro Ser Leu Pro Phe Ile Arg His Lys Thr Leu Asn Leu Thr  
1 5 10 15  
Ser Met Ala Thr Lys Ile Ile Gly Ser Pro Glu Thr Lys Trp Ile Asp  
20 25 30  
Ala Thr Ser Gly Ile Tyr Asn Ser Glu Lys Ser Ser Asn Leu Ser Val  
35 40 45  
Thr Thr Asp Phe Ser Glu Ser Leu Gln Ser Ser Asn Ile Glu Ser Lys  
50 55 60  
Glu Ile Asn Gly Ile His Asp Glu Ser Asn Ala Phe Glu Ser Lys Ala  
65 70 75 80  
Ser

<210> 458  
<211> 41  
<212> PRT  
<213> homo sapiens

<400> 458

Gln Leu Ile Ser Pro Lys Ala Phe Arg Val Leu Ile Leu Asn Pro Lys  
1 5 10 15  
Lys Ser Met Glu Phe Met Met Lys Ala Met Leu Leu Asn Gln Lys His

002275632960

00222T 56EE2960

|     |     |     |     |     |     |     |     |     |  |  |  |  |  |    |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|--|----|--|--|
|     |     |     | 20  |     |     |     |     | 25  |  |  |  |  |  | 30 |  |  |
| Leu | Glu | Ser | Ile | Phe | Phe | Glu | Lys | Pro |  |  |  |  |  |    |  |  |
|     |     | 35  |     |     |     |     | 40  |     |  |  |  |  |  |    |  |  |

<210> 459  
 <211> 36  
 <212> PRT  
 <213> homo sapiens

<400> 459

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ile | Pro | Glu | Val | Ala | Ser | Ile | His | Phe | Val | Ser | Gly | Glu | Pro | Ile | Ile |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Leu | Val | Ala | Ile | Leu | Val | Arg | Leu | Arg | Val | Leu | Cys | Arg | Ile | Asn | Gly |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Arg | Glu | Gly | Trp |     |     |     |     |     |     |     |     |     |     |     |     |  |
|     |     | 35  |     |     |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 460  
 <211> 36  
 <212> PRT  
 <213> homo sapiens

<400> 460

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Asn | Ser | Glu | Gly | Phe | Arg | Arg | Asn | Gln | Leu | Leu | Gln | Ile | Asp | Leu | Lys |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Ile | Phe | Leu | Ser | Cys | Lys | Phe | Gln | Lys | Leu | His | Gln | Ser | Thr | Leu | Phe |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Gln | Val | Asn | Leu |     |     |     |     |     |     |     |     |     |     |     |     |  |
|     |     | 35  |     |     |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 461  
 <211> 83  
 <212> PRT  
 <213> homo sapiens

<400> 461

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Gly | Arg | Arg | Asn | Asp | Gln | Leu | Asn | Leu | His | Ile | Pro | Gln | Ala | Gly | Pro |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Phe | Ala | Gly | Pro | Tyr | Arg | Leu | Gly | Trp | Pro | Leu | Leu | Ser | Ser | Gly | Ile |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Arg | Leu | Pro | Asp | Trp | Leu | Val | Leu | His | Val | Ser | Ile | Lys | Leu | Lys | Val |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Ile | Pro | Trp | Pro | Pro | Pro | Gly | Glu | Asn | Gln | Pro | His | Pro | Ala | Ser | Trp |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Gly | Gln | Trp | Gly | Arg | Asp | Phe | Gly | Leu | Ser | Glu | Gln | Leu | Leu | Glu | Ala |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Ala | His | Asp |     |     |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 462  
 <211> 93

<212> PRT  
<213> homo sapiens

<400> 462

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Lys | Ala | Ser | Ile | Ile | Ala | Phe | Lys | Gly | Ile | Leu | Leu | Thr | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Thr | Gln | Gly | Val | Gln | Ser | Ala | Arg | Glu | Pro | Ile | Leu | Ile | Ser | Ser | Ser |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Lys | Met | Phe | Leu | Glu | Glu | Asn | Pro | Trp | Asn | Val | Leu | Lys | Asp | Val | Ser |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Gly | Val | Arg | Ser | Ser | Met | Trp | Leu | Ala | Lys | Gly | His | Leu | Tyr | Leu | Phe |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Gln | Leu | Glu | Phe | Ile | Asn | Ser | Cys | Ser | Leu | Val | Ser | Leu | Gly | Ala | Glu |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Val | Trp | His | Ile | Phe | Lys | Pro | Val | His | Ser | Arg | Ile | Gln |     |     |     |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     |     |     |

<210> 463  
<211> 96  
<212> PRT  
<213> homo sapiens

<400> 463

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Asn | Pro | His | Lys | Thr | Leu | Ser | Ala | Lys | Lys | Ala | Arg | Val | Ile |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Phe | Phe | Cys | Ile | Gln | Asp | Ser | Thr | Ala | Asn | Leu | Val | Phe | Cys | Tyr | Lys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Asn | Leu | Val | Ser | His | Phe | Leu | Leu | Lys | Arg | Thr | Arg | Ile | Thr | Gly | Thr |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| His | Pro | Gln | Leu | His | Glu | Thr | Pro | Ser | Phe | Leu | Asn | Glu | His | Glu | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ile | Tyr | Val | His | Pro | Ser | Thr | His | Met | Lys | Met | Leu | Cys | Ser | Ser | Thr |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Gly | Met | Asp | Gly | Ile | Arg | Ile | Lys | Pro | Ile | Trp | Lys | Leu | Lys | Tyr | Phe |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |

<210> 464  
<211> 76  
<212> PRT  
<213> homo sapiens

<400> 464

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Leu | Phe | Thr | Met | Lys | Phe | Leu | Pro | Glu | Phe | Ser | Pro | Phe | Asp | Thr |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Asn | Ser | Met | His | Val | Ser | Thr | Phe | Glu | Thr | Gln | Pro | Asn | Val | Ile | Ser |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Val | Lys | Ser | Ser | Leu | Ser | Leu | Pro | Ser | Ser | Asn | Leu | Pro | Ser | Pro | Arg |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |

00673395-12200

|           |           |     |     |     |           |           |     |     |     |           |           |     |     |     |     |
|-----------|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----|
| Val       | Tyr<br>50 | Leu | Pro | Phe | Cys       | Ala<br>55 | His | Leu | Ser | Tyr       | Ser<br>60 | Ser | Met | Leu | Phe |
| Tyr<br>65 | Asn       | Cys | Asp | Ser | Pro<br>70 | Gly       | Ser | Leu | Gly | Ala<br>75 | Ile       |     |     |     |     |

<210> 465  
 <211> 59  
 <212> PRT  
 <213> homo sapiens

<400> 465

|          |           |           |           |          |     |           |           |           |           |     |     |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Asn<br>1 | Gln       | Arg       | Met       | Ile<br>5 | Glu | Ile       | Tyr       | Ser       | Asn<br>10 | Thr | Lys | Thr       | Glu       | Arg<br>15 | Lys |
| Cys      | His       | Ser       | Thr<br>20 | Leu      | Lys | Ala       | Ala       | Asn<br>25 | Thr       | Ile | Asp | His       | Phe<br>30 | Ile       | Trp |
| Leu      | Pro       | Asp<br>35 | Ser       | Gln      | Glu | Ser       | His<br>40 | Asn       | Cys       | Lys | Ile | Thr<br>45 | Cys       | Tyr       | Cys |
| Asn      | Ser<br>50 | Asn       | Val       | His      | Lys | Met<br>55 | Ala       | Gly       | Lys       | Leu |     |           |           |           |     |

<210> 466  
 <211> 40  
 <212> PRT  
 <213> homo sapiens

<400> 466

|          |     |           |           |          |     |     |           |           |           |     |     |     |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| His<br>1 | Ala | Thr       | Val       | Thr<br>5 | Gln | Met | Cys       | Thr       | Lys<br>10 | Trp | Gln | Val | Asn       | Ser<br>15 | Arg |
| Arg      | Arg | Gln       | Ile<br>20 | Thr      | Ala | Trp | Lys       | Thr<br>25 | Gln       | Gly | Arg | Phe | Tyr<br>30 | Arg       | Asn |
| Asp      | Ile | Trp<br>35 | Leu       | Ser      | Leu | Glu | Gly<br>40 |           |           |     |     |     |           |           |     |

<210> 467  
 <211> 41  
 <212> PRT  
 <213> homo sapiens

<400> 467

|          |     |           |           |          |     |     |           |           |           |     |     |     |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Ile<br>1 | Pro | Leu       | Gln       | Arg<br>5 | Phe | Ser | Leu       | Leu       | Thr<br>10 | Ser | Leu | Phe | Phe       | Val<br>15 | Leu |
| Lys      | Leu | Asp       | Phe<br>20 | Leu      | Val | Val | His       | Ala<br>25 | Ser       | Leu | Ser | Leu | Val<br>30 | Thr       | Val |
| Asn      | Asn | Leu<br>35 | Pro       | Thr      | Ser | Ser | Asn<br>40 | Gln       |           |     |     |     |           |           |     |

<210> 468  
 <211> 65  
 <212> PRT  
 <213> homo sapiens

004221 5632960



**D E B I S J E D**

```
<210> 469
<211> 56
<212> PRT
<213> homo sapiens
```

|          |           |           |           |          |     |           |           |           |           |     |     |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Pro<br>1 | Asp       | Trp       | Leu       | Phe<br>5 | Val | Asn       | Thr       | Phe       | Pro<br>10 | Asn | Lys | Glu       | Gly       | Lys<br>15 | Gly |
| Asp      | Val       | Ser       | Tyr<br>20 | Ser      | Gly | Gly       | Lys       | Cys<br>25 | Ser       | Phe | Ser | Gly       | Lys<br>30 | Asn       | Gly |
| Cys      | Arg       | Val<br>35 | Gly       | Asn      | Gln | Gly       | Ser<br>40 | Arg       | Cys       | Glu | Leu | Leu<br>45 | Ile       | Arg       | Thr |
| Gly      | Gly<br>50 | Lys       | Val       | Val      | His | Ser<br>55 | Asn       |           |           |     |     |           |           |           |     |

<400> 470

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ala<br>1  | Arg       | Pro       | Ala        | Pro<br>5  | Ala       | Gly       | Arg       | Glu        | Gly<br>10 | Arg       | Gly       | Glu       | Gly       | Glu<br>15 | Ala       |
| Thr       | Ser       | Arg       | Arg<br>20  | Cys       | Gly       | Val       | Gly       | His<br>25  | Arg       | Ala       | Gly       | Pro       | Arg<br>30 | Glu       | Pro       |
| Ala       | Pro       | His<br>35 | Gly        | Ala       | Ala       | Ala       | Val<br>40 | Arg        | Pro       | Thr       | Pro       | Gly<br>45 | Pro       | His       | His       |
| His       | Cys<br>50 | Ala       | Ala        | Leu       | Ser       | Gly<br>55 | Ala       | Glu        | Asn       | Tyr       | Arg<br>60 | Ser       | Arg       | His       | Ala       |
| Met<br>65 | Lys       | Leu       | Ala        | Ser       | Ala<br>70 | Leu       | Arg       | Arg        | Gly       | Pro<br>75 | Ala       | Leu       | His       | Pro       | Leu<br>80 |
| Pro       | Pro       | Arg       | Ala        | Asn<br>85 | Arg       | Gly       | Arg       | Glu        | Pro<br>90 | Trp       | Arg       | Arg       | Arg       | His<br>95 | Arg       |
| Pro       | Arg       | Gly       | Trp<br>100 | Ala       | Ala       | Ala       | Ser       | Arg<br>105 | Thr       | Trp       | Arg       | Ser       |           |           |           |

<210> 471  
 <211> 399  
 <212> PRT  
 <213> homo sapiens

<400> 471

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ala<br>1   | Ala        | Gly        | Ala        | Cys<br>5   | Gly        | Ala        | Arg        | Gly        | Ser<br>10  | Gly        | Arg        | Arg        | Gly        | Ser<br>15  | Tyr        |
| Val        | Pro        | Glu        | Val<br>20  | Arg        | Cys        | Gly        | Ala        | Pro<br>25  | Gly        | Gly        | Ala        | Ala        | Gly<br>30  | Thr        | Gly        |
| Ala        | Pro        | Arg<br>35  | Ser        | Cys        | Cys        | Cys        | Gln<br>40  | Thr        | Asn        | Pro        | Gly        | Pro<br>45  | Pro        | Ser        | Ser        |
| Leu        | Arg<br>50  | Arg        | Ala        | Phe        | Arg        | Arg<br>55  | Arg        | Glu        | Leu        | Pro        | Phe<br>60  | Pro        | Ala        | Cys        | His        |
| Glu<br>65  | Ile        | Gly        | Leu        | Gly        | Ala<br>70  | Glu        | Ala        | Gly        | Ser        | Gly<br>75  | Pro        | Pro        | Pro        | Ala        | Pro<br>80  |
| Ala        | Ala        | Arg        | Glu        | Ser<br>85  | Arg        | Ser        | Arg        | Ala        | Met<br>90  | Glu        | Glu        | Glu        | Ala        | Ser<br>95  | Ser        |
| Pro        | Gly        | Leu        | Gly<br>100 | Cys        | Ser        | Lys        | Pro        | His<br>105 | Leu        | Glu        | Lys        | Leu        | Thr<br>110 | Leu        | Gly        |
| Ile        | Thr        | Arg<br>115 | Ile        | Leu        | Glu        | Ser        | Ser<br>120 | Pro        | Gly        | Val        | Thr        | Glu<br>125 | Val        | Thr        | Ile        |
| Ile        | Glu<br>130 | Lys        | Pro        | Pro        | Ala        | Glu<br>135 | Arg        | His        | Met        | Ile        | Ser<br>140 | Ser        | Trp        | Glu        | Gln        |
| Lys<br>145 | Asn        | Asn        | Cys        | Val        | Met<br>150 | Pro        | Glu        | Asp        | Val        | Lys<br>155 | Asn        | Phe        | Tyr        | Leu        | Met<br>160 |
| Thr        | Asn        | Gly        | Phe        | His<br>165 | Met        | Thr        | Trp        | Ser        | Val<br>170 | Lys        | Leu        | Asp        | Glu        | His<br>175 | Ile        |
| Ile        | Pro        | Leu        | Gly<br>180 | Ser        | Met        | Ala        | Ile        | Asn<br>185 | Ser        | Ile        | Ser        | Lys        | Leu<br>190 | Thr        | Gln        |
| Leu        | Thr        | Gln<br>195 | Ser        | Ser        | Met        | Tyr        | Ser<br>200 | Leu        | Pro        | Asn        | Ala        | Pro<br>205 | Thr        | Leu        | Ala        |
| Asp        | Leu<br>210 | Glu        | Asp        | Asp        | Thr        | His<br>215 | Glu        | Ala        | Ser        | Asp        | Asp<br>220 | Gln        | Pro        | Glu        | Lys        |
| Pro<br>225 | His        | Phe        | Asp        | Ser        | Arg<br>230 | Ser        | Val        | Ile        | Phe        | Glu<br>235 | Leu        | Asp        | Ser        | Cys        | Asn<br>240 |
| Gly        | Ser        | Gly        | Lys        | Val<br>245 | Cys        | Leu        | Val        | Tyr        | Lys<br>250 | Ser        | Gly        | Lys        | Pro        | Ala<br>255 | Leu        |
| Ala        | Glu        | Asp        | Thr<br>260 | Glu        | Ile        | Trp        | Phe        | Leu<br>265 | Asp        | Arg        | Ala        | Leu        | Tyr<br>270 | Trp        | His        |
| Phe        | Leu        | Thr<br>275 | Asp        | Thr        | Phe        | Thr        | Ala<br>280 | Tyr        | Tyr        | Arg        | Leu        | Leu<br>285 | Ile        | Thr        | His        |
| Leu        | Gly        | Leu        | Pro        | Gln        | Trp        | Gln        | Tyr        | Ala        | Phe        | Thr        | Ser        | Tyr        | Gly        | Ile        | Ser        |

00673395-122700

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|            | 290        |            |            |            | 295        |            |            |            | 300        |            |            |            |            |            |            |
| Pro<br>305 | Gln        | Ala        | Lys        | Gln        | Trp<br>310 | Phe        | Ser        | Met        | Tyr        | Lys<br>315 | Pro        | Ile        | Thr        | Tyr        | Asn<br>320 |
| Thr        | Asn        | Leu        | Leu        | Thr<br>325 | Glu        | Glu        | Thr        | Asp        | Ser<br>330 | Phe        | Val        | Asn        | Lys        | Leu<br>335 | Asp        |
| Pro        | Ser        | Lys        | Val<br>340 | Phe        | Lys        | Ser        | Lys        | Asn<br>345 | Lys        | Ile        | Val        | Ile        | Pro<br>350 | Lys        | Lys        |
| Lys        | Gly        | Pro<br>355 | Val        | Gln        | Pro        | Ala        | Gly<br>360 | Gly        | Gln        | Lys        | Gly        | Pro<br>365 | Ser        | Gly        | Pro        |
| Ser        | Gly<br>370 | Pro        | Ser        | Thr        | Ser        | Ser<br>375 | Thr        | Ser        | Lys        | Ser        | Ser<br>380 | Ser        | Gly        | Ser        | Gly        |
| Glu<br>385 | Thr        | Pro        | Pro        | Gly        | Lys<br>390 | Leu        | Arg        | His        | Pro        | Ser<br>395 | Phe        | Gln        | Phe        | Ala        |            |

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <400> 472 |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| Arg<br>1  | Ser       | Ala       | Gly       | Gly<br>5  | Phe       | Ser       | Met       | Met       | Val<br>10 | Thr       | Ser       | Val       | Thr       | Pro<br>15 | Gly       |
| Glu       | Asp       | Ser       | Arg<br>20 | Met       | Arg       | Val       | Met       | Pro<br>25 | Arg       | Val       | Ser       | Phe       | Ser<br>30 | Arg       | Cys       |
| Gly       | Leu       | Leu<br>35 | Gln       | Pro       | Ser       | Pro       | Gly<br>40 | Asp       | Asp       | Ala       | Ser       | Ser<br>45 | Ser       | Met       | Ala       |
| Arg       | Asp<br>50 | Arg       | Asp       | Ser       | Arg       | Ala<br>55 | Ala       | Gly       | Ala       | Gly       | Gly<br>60 | Gly       | Pro       | Asp       | Pro       |
| Ala<br>65 | Ser       | Ala       | Pro       | Arg       | Pro<br>70 | Ile       | Ser       | Trp       | His       | Ala<br>75 | Gly       | Asn       | Gly       | Ser       | Ser<br>80 |
| Arg       | Arg       | Leu       | Lys       | Ala<br>85 | Arg       | Arg       | Ser       | Asp       | Asp<br>90 | Gly       | Gly       | Pro       | Gly       | Leu<br>95 | Val       |

|           |           |           |           |          |     |           |           |           |           |     |     |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| <400> 473 |           |           |           |          |     |           |           |           |           |     |     |           |           |           |     |
| Lys<br>1  | Tyr       | Val       | Ser       | His<br>5 | Ala | Asn       | Ile       | Ser       | Ile<br>10 | Tyr | Lys | Trp       | Arg       | Thr<br>15 | Leu |
| Thr       | Leu       | Leu       | Leu<br>20 | Phe      | Ser | Tyr       | Lys       | Ile<br>25 | Pro       | Asn | Phe | Val       | Ile<br>30 | Ile       | Leu |
| Ser       | Gly       | Ile<br>35 | Thr       | Leu      | Tyr | Cys       | Lys<br>40 | Asn       | Ala       | Ser | Tyr | Phe<br>45 | Thr       | Phe       | Lys |
| Phe       | Asp<br>50 | Asn       | Val       | Cys      | Asp | Glu<br>55 | Leu       |           |           |     |     |           |           |           |     |

<210> 474  
 <211> 37  
 <212> PRT  
 <213> homo sapiens

<400> 474

|          |     |           |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Trp<br>1 | Ile | Phe       | Arg       | Val<br>5 | Cys | Cys | Ile | Ser       | Arg<br>10 | Glu | Ile | His | Phe       | Tyr<br>15 | Ile |
| Leu      | Phe | Tyr       | Tyr<br>20 | Lys      | His | Leu | Asp | Lys<br>25 | Gly       | His | Leu | Thr | His<br>30 | Phe       | Lys |
| Lys      | His | Lys<br>35 | Cys       | Ile      |     |     |     |           |           |     |     |     |           |           |     |

<210> 475  
 <211> 33  
 <212> PRT  
 <213> homo sapiens

<400> 475

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Pro<br>1 | Lys | Gly | Leu       | Ser<br>5 | Ile | Lys | Val | Arg       | Arg<br>10 | Asn | Leu | Asp | Thr       | Arg<br>15 | Arg |
| Lys      | Arg | Cys | Arg<br>20 | Leu      | Leu | Asn | Phe | Ile<br>25 | Ile       | His | His | Ile | His<br>30 | Cys       | Gln |
| Ile      |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |

<210> 476  
 <211> 80  
 <212> PRT  
 <213> homo sapiens

<400> 476

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| His<br>1  | Ile       | Lys       | Ile       | Glu<br>5 | Phe       | Phe       | Gly       | Gln       | Asn<br>10 | Phe       | Trp       | Glu       | Ala       | Met<br>15 | His       |
| Pro       | Thr       | Trp       | Ala<br>20 | Asp      | Ile       | Gln       | Pro       | Glu<br>25 | Leu       | Phe       | Ser       | Arg       | Gly<br>30 | Glu       | Trp       |
| Tyr       | Trp       | Gln<br>35 | Phe       | Met      | Ala       | Glu       | Ile<br>40 | His       | Ser       | Asp       | Trp       | Leu<br>45 | Glu       | Ser       | Met       |
| Leu       | Tyr<br>50 | Gln       | Leu       | Leu      | Asn       | Ile<br>55 | Leu       | Ser       | Ile       | Thr       | Leu<br>60 | Ala       | Tyr       | Cys       | Tyr       |
| Tyr<br>65 | Tyr       | Ile       | Ser       | Ser      | Ile<br>70 | Tyr       | Arg       | Gln       | Lys       | Gly<br>75 | His       | Phe       | Arg       | Asn       | Ile<br>80 |

<210> 477  
 <211> 48  
 <212> PRT  
 <213> homo sapiens

<400> 477

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Ser<br>1 | Ser | Leu | Gly | Lys<br>5 | Thr | Phe | Gly | Lys | Gln<br>10 | Cys | Ile | Leu | His | Gly<br>15 | Leu |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|

004227" 5652960



002221"56E2960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Val<br>145 | Gln        | Lys        | Val        | Ile        | Leu<br>150 | Asn        | Tyr        | Pro        | Ser        | Pro<br>155 | Trp        | Asp        | Gln        | Glu        | Glu<br>160 |
| Arg        | Pro        | Ala        | Gln        | Arg<br>165 | Asp        | Cys        | Ser        | Phe        | Pro<br>170 | Gly        | Leu        | Pro        | Arg        | His<br>175 | Gln        |
| Asp        | Gln        | Pro        | His<br>180 | His        | Gln        | Pro        | Pro        | Asn<br>185 | Arg        | Ala        | Gly        | Ala        | Pro<br>190 | Gly        | Glu        |
| Ser        | Leu        | Glu<br>195 | Cys        | Pro        | Ala        | Glu        | Leu<br>200 | Arg        | Pro        | Gln        | Val        | Pro<br>205 | Gln        | Pro        | Pro        |
| Ser        | Pro<br>210 | Ala        | Ala        | Val        | Pro        | Arg<br>215 | Pro        | Pro        | Ser        | Asn<br>220 | Pro        | Pro        | Ala        | Arg        | Gly        |
| Thr<br>225 | Leu        | Lys        | Thr        | Ser        | Asn<br>230 | Leu        | Pro        | Glu        | Glu        | Leu<br>235 | Arg        | Lys        | Val        | Phe        | Ile<br>240 |
| Thr        | Tyr        | Ser        | Met        | Asp<br>245 | Thr        | Ala        | Met        | Glu        | Val<br>250 | Val        | Lys        | Phe        | Val        | Asn<br>255 | Phe        |
| Leu        | Leu        | Val        | Asn<br>260 | Gly        | Phe        | Gln        | Thr        | Ala<br>265 | Ile        | Asp        | Ile        | Phe        | Glu<br>270 | Asp        | Arg        |
| Ile        | Arg        | Gly<br>275 | Ile        | Asp        | Ile        | Ile        | Lys<br>280 | Trp        | Met        | Glu        | Arg        | Tyr<br>285 | Leu        | Arg        | Asp        |
| Lys        | Thr<br>290 | Val        | Met        | Ile        | Ile        | Val<br>295 | Ala        | Ile        | Ser        | Pro        | Lys<br>300 | Tyr        | Lys        | Gln        | Asp        |
| Val<br>305 | Glu        | Gly        | Ala        | Glu        | Ser<br>310 | Gln        | Leu        | Asp        | Glu        | Asp<br>315 | Glu        | His        | Gly        | Leu        | His<br>320 |
| Thr        | Lys        | Tyr        | Ile        | His<br>325 | Arg        | Met        | Met        | Gln        | Ile<br>330 | Glu        | Phe        | Ile        | Lys        | Gln<br>335 | Gly        |
| Ser        | Met        | Asn        | Phe<br>340 | Arg        | Phe        | Ile        | Pro        | Val<br>345 | Leu        | Phe        | Pro        | Asn        | Ala<br>350 | Lys        | Lys        |
| Glu        | His        | Val<br>355 | Pro        | Thr        | Trp        | Leu        | Gln<br>360 | Asn        | Thr        | His        | Val        | Tyr<br>365 | Ser        | Trp        | Pro        |
| Lys        | Asn<br>370 | Lys        | Lys        | Asn        | Ile        | Leu<br>375 | Leu        | Arg        | Leu        | Leu        | Arg<br>380 | Glu        | Glu        | Glu        | Tyr        |
| Val<br>385 | Ala        | Pro        | Pro        | Arg        | Gly<br>390 | Pro        | Leu        | Pro        | Thr        | Leu<br>395 | Gln        | Val        | Val        | Pro        | Leu<br>400 |

<210> 480

<211> 225

<212> PRT

<213> homo sapiens

<400> 480

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Ser<br>1 | Ser | Ser       | Gly       | Trp<br>5 | Arg | Val | Ala       | Arg       | Gly<br>10 | Ser | Arg | His       | Ser       | Ser<br>15 | Trp |
| Gly      | Arg | Arg       | Leu<br>20 | Gly      | Asn | Leu | Trp       | Ser<br>25 | Gln       | Leu | Cys | Arg       | Ala<br>30 | Leu       | Gln |
| Gly      | Leu | Pro<br>35 | Arg       | Ser      | Thr | Ser | Ser<br>40 | Ile       | Arg       | Trp | Leu | Val<br>45 | Met       | Trp       | Leu |



002227"56EE2960

| 100                |     |     |     |     |     |     |     | 105 |     |     |     | 110 |     |     |     |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His                | Glu | Cys | Ser | Glu | Ala | Arg | Trp | Ala | His | Ala | Pro | Ser |     |     |     |
|                    |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| <210> 482          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <211> 96           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <212> PRT          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <213> homo sapiens |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <400> 482          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Val                | Ala | Met | Thr | Ala | Lys | Asp | Cys | Ser | Ile | Met | Ile | Ala | Leu | Ser | Pro |
| 1                  |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Cys                | Leu | Gln | Asp | Ala | Ser | Ser | Asp | Gln | Arg | Pro | Val | Val | Pro | Ser | Ser |
|                    |     |     | 20  |     |     |     |     | 25  |     |     |     | 30  |     |     |     |
| Arg                | Ser | Arg | Phe | Ala | Phe | Ser | Val | Ser | Val | Leu | Asp | Leu | Asp | Leu | Lys |
|                    |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Pro                | Tyr | Glu | Ser | Ile | Pro | His | Gln | Tyr | Lys | Leu | Asp | Gly | Lys | Ile | Val |
|                    | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Asn                | Tyr | Tyr | Ser | Lys | Thr | Val | Arg | Ala | Lys | Asp | Asn | Ala | Val | Met | Ser |
| 65                 |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     | 80  |     |
| Thr                | Arg | Phe | Lys | Glu | Ser | Glu | Asp | Cys | Thr | Leu | Val | Leu | His | Lys | Val |
|                    |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| <210> 483          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <211> 66           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <212> PRT          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <213> homo sapiens |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <400> 483          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Leu                | His | Cys | Leu | Pro | Val | Cys | Arg | Met | Pro | Ala | Leu | Ile | Lys | Gly | Leu |
| 1                  |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Trp                | Ser | Leu | His | Arg | Gly | Pro | Gly | Leu | Pro | Phe | Pro | Cys | Leu | Cys | Trp |
|                    |     |     | 20  |     |     |     |     | 25  |     |     |     | 30  |     |     |     |
| Thr                | Leu | Thr | Ser | Ser | Pro | Thr | Arg | Ala | Phe | Pro | Ile | Ser | Ile | Asn | Trp |
|                    |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Thr                | Ala | Arg | Ser | Ser | Thr | Ile | Ile | Gln | Arg | Leu | Tyr | Val | Pro | Lys | Thr |
|                    | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Thr                | Pro |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 65                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <210> 484          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <211> 109          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <212> PRT          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <213> homo sapiens |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <400> 484          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Asn                | Lys | Ala | Phe | Arg | Ile | Arg | Glu | Ser | Asp | Met | Ser | Pro | Gly | Trp | Glu |
| 1                  |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg                | Arg | Thr | Ile | Gln | Asn | Val | Phe | Pro | Gly | Leu | Asn | Gly | His | Phe | His |



| 20  |     |     |     |     |     | 25  |     |     |     |     |     | 30  |     |     |     |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Phe | Lys | Ser | Val | Ser | Ser | Phe | Leu | Gly | His | Ser | Thr | His | Phe | Leu | His |  |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |  |
| Ser | Leu | Ser | Arg | Lys | Leu | Phe | Leu | Val | Leu | Phe | Asn | Ser | Met | Ser | Pro |  |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |  |
| Arg | Gly | Asn | Pro | Thr | Ser | Lys | Gly | Val | Lys | Ser | Lys | Asn | Ile | His | Asn |  |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |  |
| Gln | Arg | Ser | Pro | Asn | Thr | Thr | Glu | Asn | Ile | Ser | Ile | Ile | Gln | Pro | Ser |  |  |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |  |
| His | Tyr | Val | Gln | Val | Ser | Lys | Thr | Leu | Gln | Gly | Lys | Ser |     |     |     |  |  |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     |     |     |     |  |  |

<210> 485  
 <211> 66  
 <212> PRT  
 <213> homo sapiens

<400> 485

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ser | Ser | Ile | Pro | Cys | Leu | Gln | Glu | Ala | Ile | Pro | Pro | Gln | Lys | Gly |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | Lys | Ala | Lys | Thr | Phe | Thr | Thr | Lys | Gly | His | Pro | Thr | Gln | Gln | Lys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ile | Ser | Leu | Ser | Phe | Ser | Leu | His | Ile | Met | Phe | Lys | Phe | Gln | Arg | His |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Cys | Arg | Glu | Arg | Val | Arg | Pro | Cys | Gly | Glu | Leu | Met | Cys | Asn | Leu | Arg |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Phe | Pro |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 486  
 <211> 109  
 <212> PRT  
 <213> homo sapiens

<400> 486

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Pro | Ala | Pro | Ala | Gly | Arg | Glu | Gly | Arg | Gly | Glu | Gly | Glu | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Thr | Ser | Arg | Arg | Cys | Gly | Val | Gly | His | Arg | Ala | Gly | Pro | Arg | Glu | Pro |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ala | Pro | His | Gly | Ala | Ala | Ala | Val | Arg | Pro | Thr | Pro | Gly | Pro | His | His |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| His | Cys | Ala | Ala | Leu | Ser | Gly | Ala | Glu | Asn | Tyr | Arg | Ser | Arg | His | Ala |
|     | 50  |     |     |     |     | 55  |     |     |     | 60  |     |     |     |     |     |
| Met | Lys | Leu | Ala | Ser | Ala | Leu | Arg | Arg | Gly | Pro | Ala | Leu | His | Pro | Leu |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Pro | Pro | Arg | Ala | Asn | Arg | Gly | Arg | Glu | Pro | Trp | Arg | Arg | Arg | His | Arg |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |

00673395.12200

002227"5652960

Pro Arg Gly Trp Ala Ala Ala Ser Arg Thr Trp Arg Ser  
100 105

<210> 487  
<211> 389  
<212> PRT  
<213> homo sapiens  
  
<400> 487

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ala<br>1   | Ala        | Gly        | Ala        | Cys<br>5   | Gly        | Ala        | Arg        | Gly        | Ser<br>10  | Gly        | Arg        | Arg        | Gly        | Ser<br>15  | Tyr        |
| Val        | Pro        | Glu        | Val<br>20  | Arg        | Cys        | Gly        | Ala        | Pro<br>25  | Gly        | Gly        | Ala        | Ala        | Gly<br>30  | Thr        | Gly        |
| Ala        | Pro        | Arg<br>35  | Ser        | Cys        | Cys        | Cys        | Gln<br>40  | Thr        | Asn        | Pro        | Gly        | Pro<br>45  | Pro        | Ser        | Ser        |
| Leu        | Arg<br>50  | Arg        | Ala        | Phe        | Arg        | Arg<br>55  | Arg        | Glu        | Leu        | Pro        | Phe<br>60  | Pro        | Ala        | Cys        | His        |
| Glu<br>65  | Ile        | Gly        | Leu        | Gly        | Ala<br>70  | Glu        | Ala        | Gly        | Ser        | Gly<br>75  | Pro        | Pro        | Pro        | Ala        | Pro<br>80  |
| Ala        | Ala        | Arg        | Glu        | Ser<br>85  | Arg        | Ser        | Arg        | Ala        | Met<br>90  | Glu        | Glu        | Glu        | Ala        | Ser<br>95  | Ser        |
| Pro        | Gly        | Leu        | Gly<br>100 | Cys        | Ser        | Lys        | Pro        | His<br>105 | Leu        | Glu        | Lys        | Leu        | Thr<br>110 | Leu        | Gly        |
| Ile        | Thr        | Arg<br>115 | Ile        | Leu        | Glu        | Ser        | Ser<br>120 | Pro        | Gly        | Val        | Thr        | Glu<br>125 | Val        | Thr        | Ile        |
| Ile        | Glu<br>130 | Lys        | Pro        | Pro        | Ala        | Glu<br>135 | Arg        | His        | Met        | Ile        | Ser<br>140 | Ser        | Trp        | Glu        | Gln        |
| Lys<br>145 | Asn        | Asn        | Cys        | Val        | Met<br>150 | Pro        | Glu        | Asp        | Val        | Lys<br>155 | Asn        | Phe        | Tyr        | Leu        | Met<br>160 |
| Thr        | Asn        | Gly        | Phe        | His<br>165 | Met        | Thr        | Trp        | Ser        | Val<br>170 | Lys        | Leu        | Asp        | Glu        | His<br>175 | Ile        |
| Ile        | Pro        | Leu        | Gly<br>180 | Ser        | Met        | Ala        | Ile        | Asn<br>185 | Ser        | Ile        | Ser        | Lys        | Leu<br>190 | Thr        | Gln        |
| Leu        | Thr        | Gln<br>195 | Ser        | Ser        | Met        | Tyr        | Ser<br>200 | Leu        | Pro        | Asn        | Ala        | Pro<br>205 | Thr        | Leu        | Ala        |
| Asp        | Leu<br>210 | Glu        | Asp        | Asp        | Thr        | His<br>215 | Glu        | Ala        | Ser        | Asp        | Asp<br>220 | Gln        | Pro        | Glu        | Lys        |
| Pro<br>225 | His        | Phe        | Asp        | Ser        | Arg<br>230 | Ser        | Val        | Ile        | Phe        | Glu<br>235 | Leu        | Asp        | Ser        | Cys        | Asn<br>240 |
| Gly        | Ser        | Gly        | Lys        | Val<br>245 | Cys        | Leu        | Val        | Tyr        | Lys<br>250 | Ser        | Gly        | Lys        | Pro        | Ala<br>255 | Leu        |
| Ala        | Glu        | Asp        | Thr<br>260 | Glu        | Ile        | Trp        | Phe        | Leu<br>265 | Asp        | Arg        | Ala        | Leu        | Tyr<br>270 | Trp        | His        |
| Phe        | Leu        | Thr        | Asp        | Thr        | Phe        | Thr        | Ala        | Tyr        | Tyr        | Arg        | Leu        | Leu        | Ile        | Thr        | His        |

00673395-122700

| 275                |     |     |     |     |     | 280 |     |     |     |     |     | 285 |     |     |     |  |  |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Leu                | Gly | Leu | Pro | Gln | Trp | Gln | Tyr | Ala | Phe | Thr | Ser | Tyr | Gly | Ile | Ser |  |  |
|                    | 290 |     |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |  |  |
| Pro                | Gln | Ala | Lys | Gln | Trp | Phe | Ser | Met | Tyr | Lys | Pro | Ile | Thr | Tyr | Asn |  |  |
| 305                |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |  |  |
| Thr                | Asn | Leu | Leu | Thr | Glu | Glu | Thr | Asp | Ser | Phe | Val | Asn | Lys | Leu | Asp |  |  |
|                    |     |     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |  |  |
| Pro                | Ser | Lys | Val | Phe | Lys | Ser | Lys | Asn | Lys | Ile | Val | Ile | Pro | Lys | Lys |  |  |
|                    |     |     | 340 |     |     |     |     | 345 |     |     |     | 350 |     |     |     |  |  |
| Lys                | Gly | Pro | Val | Gln | Pro | Ala | Gly | Gly | Gln | Lys | Gly | Pro | Ser | Gly | Pro |  |  |
|                    |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |  |  |
| Ser                | Gly | Pro | Ser | Thr | Ser | Ser | Thr | Ser | Lys | Ser | Ser | Ser | Gly | Ser | Gly |  |  |
|                    | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |  |  |
| Asn                | Pro | Thr | Arg | Lys |     |     |     |     |     |     |     |     |     |     |     |  |  |
| 385                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| <210> 488          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| <211> 96           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| <212> PRT          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| <213> homo sapiens |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| <400> 488          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| Arg                | Ser | Ala | Gly | Gly | Phe | Ser | Met | Met | Val | Thr | Ser | Val | Thr | Pro | Gly |  |  |
| 1                  |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |  |
| Glu                | Asp | Ser | Arg | Met | Arg | Val | Met | Pro | Arg | Val | Ser | Phe | Ser | Arg | Cys |  |  |
|                    |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |  |
| Gly                | Leu | Leu | Gln | Pro | Ser | Pro | Gly | Asp | Asp | Ala | Ser | Ser | Ser | Met | Ala |  |  |
|                    |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |  |
| Arg                | Asp | Arg | Asp | Ser | Arg | Ala | Ala | Gly | Ala | Gly | Gly | Gly | Pro | Asp | Pro |  |  |
|                    | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |  |
| Ala                | Ser | Ala | Pro | Arg | Pro | Ile | Ser | Trp | His | Ala | Gly | Asn | Gly | Ser | Ser |  |  |
| 65                 |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |  |
| Arg                | Arg | Leu | Lys | Ala | Arg | Arg | Ser | Asp | Asp | Gly | Gly | Pro | Gly | Leu | Val |  |  |
|                    |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |  |
| <210> 489          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| <211> 152          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| <212> PRT          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| <213> homo sapiens |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| <400> 489          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| Leu                | Ala | Ala | Gly | Arg | Gly | Lys | Glu | Glu | Glu | Met | Gly | Phe | Glu | Asp | His |  |  |
| 1                  |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |  |
| Gly                | Leu | Pro | Phe | Leu | Pro | Leu | Thr | His | His | Thr | Pro | Phe | Pro | Pro | Leu |  |  |
|                    |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |  |
| Ser                | Leu | Ser | Pro | Leu | Pro | Lys | Lys | Lys | Lys | Lys | Glu | Thr | Phe | Ile | Met |  |  |
|                    |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gln | Gln | Gly | Phe | Ser | Pro | Tyr | Gln | Arg | Glu | Met | Trp | Lys | Glu | Leu |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Lys | Lys | Pro | Pro | Phe | Val | Pro | Asn | Ser | Thr | Leu | Pro | Ile | Phe | Tyr | Ala |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Thr | Gln | Thr | Leu | Ser | Phe | Trp | Val | Pro | Phe | Leu | Gln | Met | Asp | Leu | Leu |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Arg | Arg | Ile | Ile | Val | Phe | His | Val | Phe | Ser | Pro | Gln | Val | Thr | Lys | Ile |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Asn | Ile | Cys | Ile | Tyr | Asn | Leu | Tyr | Tyr | Cys | Tyr | Ile | Phe | Val | Asp | Asn |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Thr | Phe | Arg | Trp | Cys | Trp | Val | Ile | Tyr | Tyr | Asn | Leu | Asn | Leu | Gly | Ile |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Ser | Phe | Gly | Leu | Pro | Gln | Ser | Cys |     |     |     |     |     |     |     |     |
| 145 |     |     |     |     | 150 |     |     |     |     |     |     |     |     |     |     |

<210> 490  
 <211> 91  
 <212> PRT  
 <213> homo sapiens

<400> 490

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Trp | Leu | Thr | Phe | Pro | Ala | Phe | Asp | Pro | Ser | His | Pro | Ile | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser | Ser | Phe | Pro | Leu | Pro | Ala | Ala | Lys | Lys | Lys | Lys | Lys | Gly | Asn | Val |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Tyr | His | Glu | Ser | Thr | Gly | Phe | Gln | Ser | Leu | Ser | Lys | Arg | Asp | Val | Glu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Arg | Ala | Lys | Glu | Thr | Thr | Leu | Cys | Ser | Gln | Leu | His | Phe | Thr | His | Ile |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Leu | Cys | Asn | Thr | Asn | Thr | Val | Leu | Leu | Gly | Pro | Phe | Leu | Thr | Asp | Gly |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Pro | Leu | Glu | Lys | Asn | Tyr | Arg | Ile | Pro | Arg | Phe |     |     |     |     |     |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     |     |     |

<210> 491  
 <211> 64  
 <212> PRT  
 <213> homo sapiens

<400> 491

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Trp | Gly | Thr | Gln | Arg | Ala | Gly | Asn | Phe | His | Tyr | Pro | Ile | Leu | Gly |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Leu | Asn | Leu | Lys | Glu | Tyr | Ile | His | Tyr | Gln | Glu | Leu | Ser | Thr | Lys | Ala |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gly | Val | Lys | Leu | His | Tyr | Thr | Trp | Leu | Phe | Thr | Ile | Pro | Gly | Ser | Pro |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |

002221"56EE2960

00673395-123700

Pro Gln His Asp Cys Gly Arg Pro Lys Asp Ile Pro Arg Phe Arg Leu  
50 55 60

<210> 492  
<211> 79  
<212> PRT  
<213> homo sapiens

<400> 492

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| Arg<br>1  | Phe       | Thr       | Ala       | Ser<br>5 | Arg       | Val       | Gly       | Asn       | Glu<br>10 | Pro       | Asp       | Ile       | Asn       | Thr<br>15 | Pro |
| Ser       | Ser       | Met       | Pro<br>20 | Cys      | Pro       | Pro       | Ser       | Gly<br>25 | Pro       | Val       | Pro       | Val       | Lys<br>30 | Ala       | Gly |
| Ser       | His       | Phe<br>35 | Ser       | His      | Pro       | Gln       | Ala<br>40 | Val       | Pro       | Lys       | Ala       | Leu<br>45 | Glu       | Glu       | Pro |
| Lys       | Glu<br>50 | Arg       | Gln       | Glu      | Pro       | Ser<br>55 | Trp       | Glu       | Leu       | Thr       | Leu<br>60 | Met       | Thr       | Arg       | Gly |
| Gln<br>65 | Leu       | Ala       | Gln       | Phe      | Pro<br>70 | Leu       | Phe       | Ser       | Trp       | Gly<br>75 | Glu       | Gly       | Thr       | Leu       |     |

<210> 493  
<211> 100  
<212> PRT  
<213> homo sapiens

<400> 493

|           |           |           |            |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Lys<br>1  | Ser       | Ser       | Pro        | Asp<br>5  | Pro       | Ala       | Arg       | His       | Tyr<br>10 | Gly       | Ser       | Pro       | Pro       | Glu<br>15 | Gly       |
| Glu       | Arg       | Arg       | Gly<br>20  | Lys       | Arg       | Ser       | Val       | Pro<br>25 | Lys       | Val       | Asn       | Pro       | Arg<br>30 | Ser       | Leu       |
| Gly       | Pro       | Thr<br>35 | Ser        | Leu       | Pro       | Thr       | Ala<br>40 | Thr       | Ser       | His       | Gln       | Pro<br>45 | His       | Ala       | Arg       |
| Ala       | Arg<br>50 | Pro       | Phe        | Pro       | Leu       | Gln<br>55 | Leu       | Thr       | Ala       | Gln       | Gln<br>60 | Met       | Leu       | Gly       | Gln       |
| Asn<br>65 | Ala       | Ser       | Pro        | His       | Leu<br>70 | Thr       | Lys       | Gly       | Leu       | Gln<br>75 | Pro       | Ala       | Gly       | Trp       | Glu<br>80 |
| Met       | Asn       | Gln       | Ile        | Leu<br>85 | Thr       | Pro       | Pro       | Pro       | Pro<br>90 | Cys       | Pro       | Ala       | His       | Leu<br>95 | Leu       |
| Gly       | Gln       | Tyr       | Gln<br>100 |           |           |           |           |           |           |           |           |           |           |           |           |

<210> 494  
<211> 83  
<212> PRT  
<213> homo sapiens

<400> 494

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Lys<br>1 | Gly | Ser | Leu | Pro<br>5 | Pro | Thr | Lys | Gln | Gly<br>10 | Lys | Leu | Gly | Gln | Leu<br>15 | Ala |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|

|           |           |           |           |     |           |           |           |           |     |           |           |           |           |     |           |
|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|-----------|
| Pro       | Gly       | His       | Gln<br>20 | Gly | Gln       | Leu       | Pro       | Thr<br>25 | Trp | Leu       | Leu       | Pro       | Phe<br>30 | Leu | Gly       |
| Phe       | Phe       | Gln<br>35 | Gly       | Phe | Gly       | Asn       | Ser<br>40 | Leu       | Gly | Val       | Gly       | Glu<br>45 | Val       | Ala | Ser       |
| Cys       | Leu<br>50 | His       | Trp       | Tyr | Trp       | Pro<br>55 | Arg       | Arg       | Trp | Ala       | Gly<br>60 | His       | Gly       | Gly | Gly       |
| Gly<br>65 | Val       | Asn       | Ile       | Trp | Phe<br>70 | Ile       | Ser       | His       | Pro | Ala<br>75 | Gly       | Cys       | Lys       | Pro | Leu<br>80 |
| Val       | Lys       |           |           |     |           |           |           |           |     |           |           |           |           |     |           |

<210> 495  
 <211> 79  
 <212> PRT  
 <213> homo sapiens

<400> 495

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| Arg<br>1  | Val       | Pro       | Ser       | Pro<br>5 | Gln       | Leu       | Asn       | Lys       | Gly<br>10 | Asn       | Trp       | Ala       | Asn       | Trp<br>15 | Pro |
| Leu       | Val       | Ile       | Lys<br>20 | Val      | Asn       | Ser       | Gln       | Leu<br>25 | Gly       | Ser       | Cys       | Leu       | Ser<br>30 | Leu       | Gly |
| Ser       | Ser       | Arg<br>35 | Ala       | Leu      | Gly       | Thr       | Ala<br>40 | Trp       | Gly       | Trp       | Glu       | Lys<br>45 | Trp       | Leu       | Pro |
| Ala       | Phe<br>50 | Thr       | Gly       | Thr      | Gly       | Pro<br>55 | Glu       | Gly       | Gly       | Gln       | Gly<br>60 | Met       | Glu       | Glu       | Gly |
| Val<br>65 | Leu       | Ile       | Ser       | Gly      | Ser<br>70 | Phe       | Pro       | Thr       | Leu       | Leu<br>75 | Ala       | Val       | Asn       | Leu       |     |

<210> 496  
 <211> 88  
 <212> PRT  
 <213> homo sapiens

<400> 496

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ile<br>1  | Gln       | Lys       | Val       | Gln<br>5  | Tyr       | Tyr       | Thr       | Ser       | Pro<br>10 | Ala       | Ala       | Phe       | Val       | Asn<br>15 | Gly       |
| Ser       | Leu       | His       | Ser<br>20 | His       | Trp       | Gly       | Thr       | Thr<br>25 | Val       | Cys       | Met       | Gly       | Arg<br>30 | Asn       | Ser       |
| Lys       | Cys       | Pro<br>35 | His       | Cys       | Gly       | His       | Trp<br>40 | Val       | Gly       | Ser       | Ala       | Phe<br>45 | Cys       | Gln       | Gly       |
| Val       | Cys<br>50 | Arg       | Asn       | Trp       | Leu       | Ile<br>55 | Ser       | Val       | Cys       | Gln       | Ser<br>60 | Asp       | Gln       | His       | Thr       |
| Lys<br>65 | Val       | Ser       | Ala       | Ile       | Lys<br>70 | Asn       | Val       | Ala       | Ser       | Leu<br>75 | His       | Pro       | Pro       | Ser       | Cys<br>80 |
| Tyr       | Ser       | Gly       | Pro       | Ser<br>85 | Asn       | Leu       | Met       |           |           |           |           |           |           |           |           |

<210> 497  
 <211> 98

004227" 56552960

<212> PRT  
<213> homo sapiens

<400> 497

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ser<br>1  | His       | Thr       | Ser       | Glu<br>5  | Lys       | Arg       | Arg       | Gly       | Thr<br>10 | Arg       | Glu       | Glu       | Val       | Thr<br>15 | Pro       |
| Ala       | Ser       | Arg       | Ser<br>20 | Ser       | Ile       | Ser       | Gly       | Val<br>25 | Lys       | Arg       | Gly       | Thr       | Val<br>30 | Ala       | Leu       |
| Pro       | Ser       | Trp<br>35 | Leu       | Arg       | Met       | Arg       | Lys<br>40 | Ser       | Phe       | Leu       | Gln       | Trp<br>45 | Glu       | Glu       | Ile       |
| His       | Phe<br>50 | Ser       | Ile       | Pro       | Val       | Gln<br>55 | Ser       | Asp       | Phe       | Met       | Gly<br>60 | Pro       | Val       | Leu       | Asn       |
| Ser<br>65 | Asp       | Cys       | Ile       | Ile       | Asn<br>70 | Thr       | Ile       | Lys       | Arg       | Asp<br>75 | Ser       | Glu       | Met       | Gly       | Ser<br>80 |
| Arg       | Ile       | His       | Trp       | Asp<br>85 | Asn       | Ser       | Lys       | Ala       | Tyr<br>90 | Asn       | Thr       | Ala       | Leu       | Met<br>95 | Asp       |
| Pro       | Thr       |           |           |           |           |           |           |           |           |           |           |           |           |           |           |

<210> 498  
<211> 83  
<212> PRT  
<213> homo sapiens

<400> 498

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ala<br>1  | Gly       | Tyr       | Thr       | Pro<br>5 | Val       | Ser       | Ser       | Thr       | Ile<br>10 | Arg       | Gln       | Leu       | His       | Gln<br>15 | Ile       |
| Thr       | Gly       | Pro       | Arg<br>20 | Val      | Thr       | Gly       | Trp       | Arg<br>25 | Met       | Gln       | Gly       | Ser       | His<br>30 | Ile       | Leu       |
| Tyr       | Gly       | Arg<br>35 | Asp       | Phe      | Gly       | Val       | Leu<br>40 | Ile       | Thr       | Leu       | Ala       | Tyr<br>45 | Arg       | Asn       | Lys       |
| Pro       | Ile<br>50 | Pro       | Ala       | Asp      | Ser       | Leu<br>55 | Thr       | Lys       | Gly       | Thr       | Pro<br>60 | His       | Pro       | Met       | Thr       |
| Thr<br>65 | Met       | Arg       | Ala       | Leu      | Ala<br>70 | Val       | Ser       | Ala       | His       | Ala<br>75 | His       | Ser       | Cys       | Thr       | Pro<br>80 |
| Met       | Ala       | Val       |           |          |           |           |           |           |           |           |           |           |           |           |           |

<210> 499  
<211> 85  
<212> PRT  
<213> homo sapiens

<400> 499

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Gly<br>1 | Lys | Ile | Cys       | Glu<br>5 | Tyr | Val | Asn | Phe       | Leu<br>10 | Ser | Leu | Arg | Asp       | Asp<br>15 | Arg |
| Met      | Phe | Pro | Tyr<br>20 | Phe      | Ser | Cys | Lys | Glu<br>25 | Asn       | Asn | Ile | Leu | Thr<br>30 | Tyr       | Thr |
| Ser      | Cys | Arg | Lys       | Tyr      | His | Leu | Phe | Pro       | Leu       | Tyr | Tyr | Ser | Thr       | Met       | Phe |

00673395-122700





<210> 502  
 <211> 53  
 <212> PRT  
 <213> homo sapiens

<400> 502

|          |           |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Thr<br>1 | Pro       | Lys       | Thr       | Leu<br>5 | Gly | Cys | Leu       | Leu       | Val<br>10 | Ser | Arg | Val       | Glu       | Gln<br>15 | Ala |
| Gln      | Arg       | Glu       | Ser<br>20 | Leu      | Gly | Pro | Glu       | Leu<br>25 | Lys       | Glu | Phe | Ile       | Glu<br>30 | Pro       | Trp |
| Gln      | Thr       | Gly<br>35 | Ser       | Lys      | Gln | Pro | Ile<br>40 | Leu       | Ala       | Ala | Val | Leu<br>45 | Arg       | Arg       | Glu |
| Cys      | Gly<br>50 | Gly       | Gln       | Ile      |     |     |           |           |           |     |     |           |           |           |     |

<210> 503  
 <211> 91  
 <212> PRT  
 <213> homo sapiens

<400> 503

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pro<br>1  | Ser       | Gly       | Pro       | Phe<br>5  | Ser       | Ser       | Leu       | Glu       | Ser<br>10 | Thr       | Leu       | Leu       | Leu       | Gln<br>15 | Gln       |
| Val       | Gln       | Ala       | Ala<br>20 | Ile       | Ala       | Ser       | Phe       | Leu<br>25 | Ser       | Asp       | Cys       | Asn       | Ser<br>30 | Pro       | Ile       |
| Arg       | Phe       | Pro<br>35 | Cys       | Phe       | Tyr       | Ile       | Cys<br>40 | Pro       | Pro       | His       | Ser       | Leu<br>45 | Leu       | Asn       | Thr       |
| Ala       | Ala<br>50 | Arg       | Met       | Gly       | Cys       | Leu<br>55 | Leu       | Pro       | Val       | Cys       | His<br>60 | Gly       | Ser       | Ile       | Asn       |
| Ser<br>65 | Leu       | Ser       | Ser       | Gly       | Pro<br>70 | Lys       | Asp       | Ser       | Arg       | Trp<br>75 | Ala       | Cys       | Ser       | Thr       | Arg<br>80 |
| Asp       | Thr       | Ser       | Arg       | Gln<br>85 | Pro       | Ser       | Val       | Leu       | Gly<br>90 | Val       |           |           |           |           |           |

<210> 504  
 <211> 59  
 <212> PRT  
 <213> homo sapiens

<400> 504

|          |           |           |           |          |     |           |           |           |           |     |     |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Val<br>1 | Phe       | Ile       | Tyr       | Asp<br>5 | Ser | Leu       | Ile       | Ile       | Pro<br>10 | Thr | Ser | Ile       | Ser       | Ser<br>15 | Val |
| His      | Thr       | Val       | Cys<br>20 | Gln      | Met | Phe       | His       | Ala<br>25 | Glu       | Pro | Val | Ser       | Arg<br>30 | Ile       | Leu |
| Leu      | Ser       | Asp<br>35 | Tyr       | Gly      | Gly | Phe       | Thr<br>40 | Thr       | Arg       | Pro | Gly | Ser<br>45 | Asn       | Ser       | Leu |
| Gly      | Ser<br>50 | Lys       | Val       | Gly      | His | Ser<br>55 | Ser       | Met       | His       | Arg |     |           |           |           |     |

0967395 12700

<210> 505  
 <211> 72  
 <212> PRT  
 <213> homo sapiens

<400> 505

|           |           |           |           |          |           |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Asp<br>1  | Arg       | Lys       | Phe       | Trp<br>5 | Asn       | Gln       | Lys       | Ile       | Asp<br>10 | Pro | Val       | Phe       | Ser       | Tyr<br>15 | Ile |
| Gln       | Ser       | Ser       | Thr<br>20 | Ser      | Glu       | Phe       | Leu       | Phe<br>25 | Leu       | Asn | Ile       | Gly       | Val<br>30 | Leu       | Ala |
| Leu       | Phe       | Leu<br>35 | Lys       | Asp      | Ala       | Leu       | Tyr<br>40 | Leu       | Lys       | Arg | Lys       | Leu<br>45 | Asp       | Phe       | Arg |
| Thr       | Gly<br>50 | Cys       | Gly       | Ala      | Val       | Lys<br>55 | Tyr       | Phe       | Arg       | Pro | Arg<br>60 | Ser       | Val       | Tyr       | Thr |
| Phe<br>65 | Tyr       | Arg       | Arg       | Asn      | Glu<br>70 | Val       | Leu       |           |           |     |           |           |           |           |     |

<210> 506  
 <211> 102  
 <212> PRT  
 <213> homo sapiens

<400> 506

|           |           |           |            |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ser<br>1  | Ile       | Leu       | Gly        | Pro<br>5  | Gly       | Leu       | Cys       | Thr       | His<br>10 | Phe       | Ile       | Glu       | Glu       | Met<br>15 | Lys       |
| Tyr       | Ser       | Glu       | Val<br>20  | Phe       | Trp       | Leu       | Pro       | Phe<br>25 | His       | Phe       | Asn       | Cys       | Val<br>30 | Leu       | Asn       |
| Leu       | Ser       | Asp<br>35 | His        | Thr       | Tyr       | Ile       | Val<br>40 | Leu       | Leu       | Gly       | Ala       | Val<br>45 | Val       | Ser       | Phe       |
| Ile       | Lys<br>50 | Pro       | Leu        | Ala       | Cys       | Val<br>55 | Gln       | Lys       | Phe       | Leu       | Lys<br>60 | Gly       | Asn       | Thr       | Ser       |
| Asn<br>65 | Ala       | Tyr       | Pro        | Leu       | Leu<br>70 | Ala       | Cys       | Tyr       | Ala       | Ala<br>75 | Cys       | Phe       | Thr       | Ala       | Ile<br>80 |
| Ala       | Val       | Cys       | Phe        | Thr<br>85 | Val       | Phe       | Val       | Lys       | Ile<br>90 | Pro       | Leu       | Ser       | Pro       | Phe<br>95 | Leu       |
| Val       | Thr       | Gly       | Lys<br>100 | Ala       | Cys       |           |           |           |           |           |           |           |           |           |           |

<210> 507  
 <211> 68  
 <212> PRT  
 <213> homo sapiens

<400> 507

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Asn<br>1 | Asn | Glu | His       | Lys<br>5 | Met | Leu | Phe | Ile       | Ile<br>10 | Thr | Ser | Ile | Cys       | Glu<br>15 | Ile |
| Ser      | Tyr | Cys | Lys<br>20 | Thr      | Thr | Thr | Gly | Leu<br>25 | Leu       | Leu | Asn | Ser | Leu<br>30 | Val       | Ile |

09673395-122700

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Phe | Arg | Leu | Glu | Met | Pro | Pro | Thr | Leu | Val | Ile | Asn | Ile | Thr | Lys |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Tyr | Asn | Val | Phe | Leu | Gly | Arg | His | Phe | Ile | Lys | Cys | Ile | Met | Pro | Trp |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Leu | Leu | Leu | Arg |     |     |     |     |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 508  
 <211> 65  
 <212> PRT  
 <213> homo sapiens

<400> 508

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Lys | Phe | Leu | Gln | Val | Leu | Lys | Phe | Phe | Phe | Tyr | Ser | Leu | His | Trp |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ile | Tyr | Val | Phe | Leu | Ile | Pro | Asn | Met | Phe | Asn | Trp | Asp | Val | Cys | His |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ser | Arg | Ala | Ala | Arg | Gln | Thr | Phe | Lys | Ser | Asn | Ser | His | Thr | Ala | Glu |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Leu | Ala | Phe | Leu | Leu | Thr | Gln | Lys | Phe | Arg | Lys | Leu | Thr | Val | Thr | Val |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Thr |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 65  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 509  
 <211> 78  
 <212> PRT  
 <213> homo sapiens

<400> 509

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Arg | Ala | His | Trp | Pro | Leu | Pro | Asn | Thr | Met | Leu | Glu | Pro | Lys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg | Ala | Asn | Met | Gly | Pro | Glu | Tyr | Asn | Gly | Asp | Ile | Phe | Met | Phe | Gln |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Pro | Phe | Asn | Leu | Thr | Cys | Leu | Leu | Leu | Ser | Phe | Pro | Pro | Ile | Ser | Ser |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Asn | Leu | Phe | Cys | Leu | Thr | Ile | Tyr | Tyr | Leu | Leu | Gly | Ile | Thr | Ser | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Tyr | Arg | Ile | Pro | Ser | Ser | Leu | Met | Ser | Cys | Pro | Lys | Gln | Tyr |     |     |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     |     |

<210> 510  
 <211> 63  
 <212> PRT  
 <213> homo sapiens

<400> 510

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Lys | Leu | Leu | Gly | Phe | Leu | Asp | Val | Glu | Asn | Thr | Pro | Cys | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |

004227 562960

|     |           |           |           |     |     |           |           |           |     |     |           |           |           |     |     |
|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|-----|
| Arg | His       | Ser       | Ile<br>20 | Leu | Tyr | Gly       | Ser       | Leu<br>25 | Gly | Ser | Val       | Val       | Ala<br>30 | Gly | Phe |
| Gly | His       | Phe<br>35 | Leu       | Phe | Thr | Ser       | Glu<br>40 | Tyr       | Leu | Tyr | Phe       | Leu<br>45 | Phe       | Leu | Tyr |
| Val | Leu<br>50 | Lys       | Lys       | Ala | Phe | Leu<br>55 | Tyr       | Ile       | Met | Asn | Tyr<br>60 | Phe       | Phe       | Phe |     |

<210> 511  
 <211> 53  
 <212> PRT  
 <213> homo sapiens

<400> 511

|          |           |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Ser<br>1 | Phe       | Val       | Lys       | Trp<br>5 | Ser | Pro | Asn       | Leu       | Lys<br>10 | Leu | Gly | Asn       | Tyr       | Glu<br>15 | Glu |
| Glu      | Lys       | Ile       | Ala<br>20 | Arg      | Tyr | Leu | Leu       | Arg<br>25 | Ser       | Ala | Cys | Arg       | Ser<br>30 | Ala       | Val |
| Gly      | Leu       | Val<br>35 | Thr       | Ile      | Gly | Ser | Lys<br>40 | Val       | Leu       | Leu | Gln | Trp<br>45 | Gln       | Ile       | Leu |
| Trp      | Pro<br>50 | Leu       | Ser       | Gly      |     |     |           |           |           |     |     |           |           |           |     |

<210> 512  
 <211> 43  
 <212> PRT  
 <213> homo sapiens

<400> 512

|          |     |           |           |          |     |     |           |           |           |     |     |     |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Ile<br>1 | Cys | Cys       | Arg       | Ala<br>5 | Cys | His | His       | Trp       | Lys<br>10 | Gln | Gly | Pro | Thr       | Ser<br>15 | Val |
| Ala      | Asp | Leu       | Val<br>20 | Ala      | Phe | Glu | Trp       | Leu<br>25 | Lys       | Thr | Thr | Thr | Leu<br>30 | His       | Arg |
| Ala      | Gly | Ala<br>35 | Met       | His      | Arg | His | Pro<br>40 | Ser       | Leu       | Pro |     |     |           |           |     |

<210> 513  
 <211> 37  
 <212> PRT  
 <213> homo sapiens

<400> 513

|          |     |           |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Gln<br>1 | Ala | Leu       | Gln       | Gln<br>5 | Ile | Tyr | Arg | Gln       | Thr<br>10 | Leu | Thr | Asp | Thr       | Gly<br>15 | Gln |
| Phe      | Ser | Leu       | Leu<br>20 | Arg      | Asn | Phe | Leu | Val<br>25 | Leu       | Ser | Trp | Val | Thr<br>30 | Ile       | Leu |
| Gln      | Asn | Phe<br>35 | Thr       | Thr      |     |     |     |           |           |     |     |     |           |           |     |

<210> 514  
 <211> 228  
 <212> PRT

00673395-122700

<213> homo sapiens

<400> 514

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Thr<br>1   | Gly        | Gly        | Ala        | Arg<br>5   | Ala        | Arg        | Arg        | Pro        | Leu<br>10  | Ser        | Ala        | Val        | Ala        | Arg<br>15  | Pro        |  |
| Ala        | Arg        | Ser        | Ser<br>20  | Asp        | Pro        | Leu        | Arg        | Ser<br>25  | Ala        | Pro        | Leu        | Gly        | Pro<br>30  | Ala        | Pro        |  |
| Pro        | Val        | Asn<br>35  | Met        | Ile        | Arg        | Cys        | Gly<br>40  | Leu        | Ala        | Cys        | Glu        | Arg<br>45  | Cys        | Arg        | Trp        |  |
| Ile        | Leu<br>50  | Pro        | Leu        | Leu        | Leu        | Leu<br>55  | Ser        | Ala        | Ile        | Ala        | Phe<br>60  | Asp        | Ile        | Ile        | Ala        |  |
| Leu<br>65  | Ala        | Gly        | Arg        | Gly        | Trp<br>70  | Leu        | Gln        | Ser        | Ser        | Asp<br>75  | His        | Gly        | Gln        | Thr        | Ser<br>80  |  |
| Ser        | Leu        | Trp        | Trp        | Lys<br>85  | Cys        | Ser        | Gln        | Glu        | Gly<br>90  | Gly        | Gly        | Ser        | Gly        | Ser<br>95  | Tyr        |  |
| Glu        | Glu        | Gly        | Cys<br>100 | Gln        | Ser        | Leu        | Met        | Glu<br>105 | Tyr        | Ala        | Trp        | Gly        | Arg<br>110 | Ala        | Ala        |  |
| Ala        | Ala        | Met<br>115 | Leu        | Phe        | Cys        | Gly        | Phe<br>120 | Ile        | Ile        | Leu        | Val        | Ile<br>125 | Cys        | Phe        | Ile        |  |
| Leu        | Ser<br>130 | Phe        | Phe        | Ala        | Leu        | Cys<br>135 | Gly        | Pro        | Gln        | Met        | Leu<br>140 | Val        | Phe        | Leu        | Arg        |  |
| Val<br>145 | Ile        | Gly        | Gly        | Leu        | Leu<br>150 | Ala        | Leu        | Ala        | Ala        | Val<br>155 | Phe        | Gln        | Ile        | Ile        | Ser<br>160 |  |
| Leu        | Val        | Ile        | Tyr        | Pro<br>165 | Val        | Lys        | Tyr        | Thr        | Gln<br>170 | Thr        | Phe        | Thr        | Leu        | His<br>175 | Ala        |  |
| Asn        | Arg        | Ala        | Val<br>180 | Thr        | Tyr        | Ile        | Tyr        | Asn<br>185 | Trp        | Ala        | Tyr        | Gly        | Phe<br>190 | Gly        | Trp        |  |
| Ala        | Ala        | Thr<br>195 | Ile        | Ile        | Leu        | Ile        | Gly<br>200 | Cys        | Ala        | Phe        | Phe        | Phe<br>205 | Cys        | Cys        | Leu        |  |
| Pro        | Asn<br>210 | Tyr        | Glu        | Asp        | Asp        | Leu<br>215 | Leu        | Gly        | Asn        | Ala        | Lys<br>220 | Pro        | Arg        | Tyr        | Phe        |  |
| Tyr<br>225 | Thr        | Ser        | Ala        |            |            |            |            |            |            |            |            |            |            |            |            |  |

<210> 515

<211> 94

<212> PRT

<213> homo sapiens

<400> 515

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |  |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|--|
| Asp<br>1 | Pro | Leu | Pro       | Pro<br>5 | Pro | Ser | Trp | Glu       | His<br>10 | Phe | His | His | Ser       | Glu<br>15 | Asp |  |
| Val      | Trp | Pro | Trp<br>20 | Ser      | Leu | Asp | Cys | Asn<br>25 | Gln       | Pro | Arg | Pro | Ala<br>30 | Ser       | Ala |  |
| Met      | Met | Ser | Lys       | Ala      | Met | Ala | Leu | Ser       | Arg       | Ser | Arg | Gly | Arg       | Ile       | Gln |  |

002227"5622960

00673395-122700

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Arg | Gln | Arg | Ser | Gln | Ala | Arg | Pro | Gln | Arg | Ile | Met | Leu | Thr | Gly | Gly |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ala | Gly | Pro | Ser | Gly | Ala | Glu | Arg | Ser | Gly | Ser | Glu | Glu | Arg | Ala | Gly |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Arg | Ala | Thr | Ala | Glu | Ser | Gly | Leu | Arg | Ala | Arg | Ala | Pro | Pro |     |     |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     |     |     |

<210> 516  
 <211> 208  
 <212> PRT  
 <213> homo sapiens

<400> 516

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Pro | Lys | Asn | Gly | Phe | Lys | Val | Ala | Trp | Arg | Asn | Ser | Phe | Phe |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Phe | Trp | Ser | Pro | Ser | Gln | Gln | Gln | Arg | Phe | Ser | Pro | Thr | Phe | Ile | Pro |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Lys | Leu | Gly | Arg | Cys | Val | Glu | Val | Pro | Gly | Leu | Gly | Ile | Ala | Gln | Lys |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Val | Ile | Phe | Val | Val | Gly | Glu | Ala | Ala | Glu | Glu | Glu | Gly | Thr | Ala | Asp |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Gln | Asp | Asn | Arg | Gly | Cys | Pro | Pro | Lys | Ala | Val | Gly | Pro | Val | Ile | Asp |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Val | Ser | Asp | Ser | Thr | Val | Gly | Met | Lys | Gly | Glu | Gly | Leu | Gly | Val | Leu |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| His | Gly | Val | Asn | Tyr | Gln | Gly | Asp | Asp | Leu | Glu | His | Ser | Ser | Gln | Gly |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Lys | Glu | Thr | Ser | Asn | His | Ser | Gln | Glu | Asp | Lys | His | Leu | Gly | Ser | Thr |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Glu | Gly | Glu | Glu | Gly | Glu | Asp | Glu | Thr | Asp | His | Gln | Asp | Asp | Glu | Ala |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Thr | Glu | Glu | His | Gly | Ser | Arg | Cys | Ser | Thr | Pro | Arg | Val | Leu | His | Glu |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Ala | Leu | Thr | Ala | Leu | Leu | Val | Gly | Pro | Ala | Ala | Ala | Ala | Leu | Leu | Gly |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Ala | Phe | Pro | Pro | Gln | Arg | Gly | Arg | Leu | Ala | Val | Val | Ala | Arg | Leu | Gln |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Pro | Ala | Ala | Ala | Gly | Gln | Arg | Asp | Asp | Val | Glu | Gly | Asp | Gly | Ala | Glu |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |

<210> 517  
 <211> 204  
 <212> PRT  
 <213> homo sapiens

<400> 517

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Pro<br>1   | Ser        | Cys        | Pro        | Pro<br>5   | Glu        | Met        | Lys        | Lys        | Glu<br>10  | Leu        | Pro        | Val        | Asp        | Ser<br>15  | Cys        |
| Leu        | Pro        | Arg        | Ser<br>20  | Leu        | Glu        | Leu        | His        | Pro<br>25  | Gln        | Lys        | Met        | Asp        | Pro<br>30  | Lys        | Arg        |
| Gln        | His        | Ile<br>35  | Gln        | Leu        | Leu        | Ser        | Ser<br>40  | Leu        | Thr        | Glu        | Cys        | Leu<br>45  | Thr        | Val        | Asp        |
| Pro        | Leu<br>50  | Ser        | Ala        | Ser        | Val        | Trp<br>55  | Arg        | Gln        | Leu        | Tyr        | Pro<br>60  | Lys        | His        | Leu        | Ser        |
| Gln<br>65  | Ser        | Ser        | Leu        | Leu        | Leu<br>70  | Glu        | His        | Leu        | Leu        | Ser<br>75  | Ser        | Trp        | Glu        | Gln        | Ile<br>80  |
| Pro        | Lys        | Lys        | Val        | Gln<br>85  | Lys        | Ser        | Leu        | Gln        | Glu<br>90  | Thr        | Ile        | Gln        | Ser        | Leu<br>95  | Lys        |
| Leu        | Thr        | Asn        | Gln<br>100 | Glu        | Leu        | Leu        | Arg        | Lys<br>105 | Gly        | Ser        | Ser        | Asn        | Asn<br>110 | Gln        | Asp        |
| Val        | Val        | Thr<br>115 | Cys        | Asp        | Met        | Ala        | Cys<br>120 | Lys        | Gly        | Leu        | Leu        | Gln<br>125 | Gln        | Val        | Gln        |
| Gly        | Pro<br>130 | Arg        | Leu        | Pro        | Trp        | Thr<br>135 | Arg        | Leu        | Leu        | Leu        | Leu<br>140 | Leu        | Leu        | Val        | Phe        |
| Ala<br>145 | Val        | Gly        | Phe        | Leu        | Cys<br>150 | His        | Asp        | Leu        | Arg        | Ser<br>155 | His        | Ser        | Ser        | Phe        | Gln<br>160 |
| Ala        | Ser        | Leu        | Thr        | Gly<br>165 | Arg        | Leu        | Leu        | Arg        | Ser<br>170 | Ser        | Gly        | Phe        | Leu        | Pro<br>175 | Ala        |
| Ser        | Gln        | Gln        | Ala<br>180 | Cys        | Ser        | Lys        | Phe        | Thr<br>185 | Pro        | Thr        | Val        | Cys        | Lys<br>190 | Val        | Thr        |
| Gly        | Trp        | Leu<br>195 | Gly        | Glu        | Lys        | Cys        | Arg<br>200 | Phe        | Gly        | Val        | Pro        |            |            |            |            |

```
<210> 518
<211> 90
<212> PRT
<213> homo sapiens
```

<400> 518

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pro<br>1  | Glu       | Val       | Met       | Ala<br>5 | Gln       | Glu       | Ala       | Tyr       | Ser<br>10 | Glu       | Asp       | Gln       | Gln       | Gln<br>15 | Gln       |
| Glu       | Glu       | Pro       | Arg<br>20 | Pro      | Gly       | Gln       | Pro       | Arg<br>25 | Thr       | Leu       | Asn       | Leu       | Leu<br>30 | Gln       | Gln       |
| Ala       | Leu       | Ala<br>35 | Gly       | His      | Val       | Thr       | Gly<br>40 | Asp       | Asp       | Ile       | Leu       | Val<br>45 | Val       | Thr       | Ala       |
| Thr       | Leu<br>50 | Pro       | Gln       | Gln      | Leu       | Leu<br>55 | Val       | Gly       | Lys       | Leu       | Glu<br>60 | Gly       | Leu       | Asn       | Gly       |
| Phe<br>65 | Leu       | Gln       | Arg       | Leu      | Leu<br>70 | Tyr       | Leu       | Leu       | Gly       | Asn<br>75 | Leu       | Leu       | Pro       | Gly       | Ala<br>80 |
| Glu       | Gln       | Val       | Leu       | Gln      | Gln       | Lys       | Ala       | Gly       | Leu       |           |           |           |           |           |           |

<210> 519  
 <211> 76  
 <212> PRT  
 <213> homo sapiens

<400> 519

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| Gly<br>1  | Thr       | Pro       | Lys       | Arg<br>5 | His       | Phe       | Ser       | Pro       | Asn<br>10 | Gln       | Pro       | Val       | Thr       | Leu<br>15 | Gln |
| Thr       | Val       | Gly       | Val<br>20 | Asn      | Leu       | Glu       | His       | Ala<br>25 | Cys       | Trp       | Leu       | Ala       | Gly<br>30 | Lys       | Lys |
| Pro       | Asp       | Asp<br>35 | Arg       | Ser      | Asn       | Arg       | Pro<br>40 | Val       | Arg       | Glu       | Ala       | Trp<br>45 | Lys       | Glu       | Leu |
| Cys       | Asp<br>50 | Arg       | Arg       | Ser      | Trp       | His<br>55 | Arg       | Lys       | Pro       | Thr       | Ala<br>60 | Lys       | Thr       | Ser       | Ser |
| Asn<br>65 | Arg       | Arg       | Ser       | Arg      | Val<br>70 | Gln       | Gly       | Ser       | Arg       | Gly<br>75 | Pro       |           |           |           |     |

<210> 520  
 <211> 355  
 <212> PRT  
 <213> homo sapiens

<400> 520

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Phe<br>1   | Arg        | His        | Ser        | Met<br>5   | Asn        | Gly        | Cys        | Glu        | Lys<br>10  | Asp        | Ser        | Ser        | Ser        | Thr<br>15  | Asp        |
| Ser        | Ala        | Asn        | Glu<br>20  | Lys        | Pro        | Ala        | Leu        | Ile<br>25  | Pro        | Arg        | Glu        | Lys        | Lys<br>30  | Ile        | Ser        |
| Ile        | Leu        | Glu<br>35  | Glu        | Pro        | Ser        | Lys        | Ala<br>40  | Leu        | Arg        | Gly        | Val        | Thr<br>45  | Gly        | Pro        | Asn        |
| Ile        | Glu<br>50  | Lys        | Ser        | Val        | Lys        | Asp<br>55  | Leu        | Gln        | Arg        | Cys        | Thr<br>60  | Val        | Ser        | Leu        | Thr        |
| Arg<br>65  | Tyr        | Arg        | Val        | Met        | Ile<br>70  | Lys        | Glu        | Glu        | Val        | Asp<br>75  | Ser        | Ser        | Val        | Lys        | Lys<br>80  |
| Ile        | Lys        | Ala        | Ala        | Phe<br>85  | Ala        | Glu        | Leu        | His        | Asn<br>90  | Cys        | Ile        | Ile        | Asp        | Lys<br>95  | Glu        |
| Val        | Ser        | Leu        | Met<br>100 | Ala        | Glu        | Met        | Asp        | Lys<br>105 | Val        | Lys        | Glu        | Glu        | Ala<br>110 | Met        | Glu        |
| Ile        | Leu        | Thr<br>115 | Ala        | Arg        | Gln        | Lys        | Lys<br>120 | Ala        | Glu        | Glu        | Leu        | Lys<br>125 | Arg        | Leu        | Thr        |
| Asp        | Leu<br>130 | Ala        | Ser        | Gln        | Met        | Ala<br>135 | Glu        | Met        | Gln        | Leu        | Ala<br>140 | Glu        | Leu        | Arg        | Ala        |
| Glu<br>145 | Ile        | Lys        | His        | Phe        | Val<br>150 | Ser        | Glu        | Arg        | Lys        | Tyr<br>155 | Asp        | Glu        | Glu        | Leu        | Gly<br>160 |
| Lys        | Ala        | Ala        | Arg        | Phe<br>165 | Ser        | Cys        | Asp        | Ile        | Glu<br>170 | Gln        | Leu        | Lys        | Ala        | Gln<br>175 | Ile        |

00673305-122700



002227 5667960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Met        | Leu        | Cys        | Gly<br>180 | Glu        | Ile        | Thr        | His        | Pro<br>185 | Lys        | Asn        | Asn        | Tyr        | Ser<br>190 | Ser        | Arg        |
| Thr        | Pro        | Cys<br>195 | Ser        | Ser        | Leu        | Leu        | Pro<br>200 | Leu        | Leu        | Asn        | Ala        | His<br>205 | Ala        | Ala        | Thr        |
| Ser        | Gly<br>210 | Lys        | Gln        | Ser        | Asn        | Phe<br>215 | Ser        | Arg        | Lys        | Ser        | Ser<br>220 | Thr        | His        | Asn        | Lys        |
| Pro<br>225 | Ser        | Glu        | Gly        | Lys        | Ala<br>230 | Ala        | Asn        | Pro        | Lys        | Met<br>235 | Val        | Ser        | Ser        | Leu        | Pro<br>240 |
| Ser        | Thr        | Ala        | Asp        | Pro<br>245 | Ser        | His        | Gln        | Thr        | Met<br>250 | Pro        | Ala        | Asn        | Lys        | Gln<br>255 | Asn        |
| Gly        | Ser        | Ser        | Asn<br>260 | Gln        | Arg        | Arg        | Arg        | Phe<br>265 | Asn        | Pro        | Gln        | Tyr        | His<br>270 | Asn        | Asn        |
| Arg        | Leu        | Asn<br>275 | Gly        | Pro        | Ala        | Lys        | Ser<br>280 | Gln        | Gly        | Ser        | Gly        | Asn<br>285 | Glu        | Ala        | Glu        |
| Pro        | Leu<br>290 | Gly        | Lys        | Gly        | Asn        | Ser<br>295 | Arg        | His        | Glu        | His        | Arg<br>300 | Arg        | Gln        | Pro        | His        |
| Asn<br>305 | Gly        | Phe        | Arg        | Pro        | Lys<br>310 | Asn        | Lys        | Gly        | Gly        | Ala<br>315 | Lys        | Asn        | Gln        | Glu        | Ala<br>320 |
| Ser        | Leu        | Gly        | Met        | Lys<br>325 | Thr        | Pro        | Glu        | Ala        | Pro<br>330 | Ala        | His        | Ser        | Glu        | Lys<br>335 | Pro        |
| Arg        | Arg        | Arg        | Gln<br>340 | Ala        | Arg        | Cys        | Arg        | Thr<br>345 | Pro        | Arg        | Glu        | Gly        | Gln<br>350 | Gly        | Pro        |
| Phe        | Arg        | Gly<br>355 |            |            |            |            |            |            |            |            |            |            |            |            |            |

<210> 521  
 <211> 120  
 <212> PRT  
 <213> homo sapiens

<400> 521

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Asn<br>1  | Gln       | Asn       | Val       | Lys<br>5  | Asn       | Arg       | Gly       | Thr       | Gln<br>10 | Lys       | Lys       | Cys       | Leu       | Pro<br>15 | Ser       |
| Val       | Glu       | Lys       | Leu<br>20 | Pro       | Asn       | Pro       | Pro       | Trp<br>25 | Gly       | Gln       | Lys       | Asn       | Ala<br>30 | Thr       | Val       |
| Lys       | Thr       | Pro<br>35 | Asn       | Arg       | Lys       | Leu       | Thr<br>40 | Pro       | Glu       | Arg       | Pro       | Leu<br>45 | Ala       | Leu       | Pro       |
| Arg       | Cys<br>50 | Pro       | Ala       | Ala       | Cys       | Leu<br>55 | Pro       | Ser       | Pro       | Gly       | Leu<br>60 | Phe       | Arg       | Met       | Gly       |
| Arg<br>65 | Gly       | Leu       | Gly       | Gly       | Leu<br>70 | His       | Pro       | Gln       | Gly       | Ser<br>75 | Leu       | Leu       | Ile       | Phe       | Gly<br>80 |
| Thr       | Ala       | Phe       | Val       | Phe<br>85 | Gly       | Pro       | Glu       | Ala       | Val<br>90 | Val       | Arg       | Leu       | Ser       | Ser<br>95 | Val       |
| Phe       | Val       | Ala       | Ala       | Val       | Ala       | Leu       | Ser       | Gln       | Trp       | Leu       | Gly       | Phe       | Ile       | Pro       | Thr       |

09673395-122700

|                    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|                    |     |     | 100 |     |     |     |     | 105 |     |     |     |     |     | 110 |     |  |
| Ala                | Leu | Arg | Leu | Gly | Arg | Pro | Ile |     |     |     |     |     |     |     |     |  |
|                    |     | 115 |     |     |     |     | 120 |     |     |     |     |     |     |     |     |  |
| <210> 522          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <211> 116          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <212> PRT          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <213> homo sapiens |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <400> 522          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| Arg                | Ala | Val | Arg | Ile | Ser | Met | Ala | Ser | Ser | Leu | Thr | Leu | Ser | Ile | Ser |  |
| 1                  |     |     |     | 5   |     |     |     | 10  |     |     |     |     |     | 15  |     |  |
| Ala                | Ile | Asn | Glu | Thr | Ser | Leu | Ser | Met | Met | Gln | Leu | Cys | Asn | Ser | Ala |  |
|                    |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Lys                | Ala | Ala | Leu | Ile | Phe | Phe | Thr | Glu | Leu | Ser | Thr | Ser | Ser | Leu | Ile |  |
|                    |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Met                | Thr | Arg | Tyr | Leu | Val | Arg | Glu | Thr | Val | Gln | Arg | Cys | Lys | Ser | Phe |  |
|                    | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Thr                | Asp | Phe | Ser | Ile | Phe | Gly | Pro | Val | Thr | Pro | Arg | Ser | Ala | Phe | Glu |  |
|                    | 65  |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Gly                | Ser | Ser | Ser | Ile | Glu | Ile | Phe | Phe | Ser | Arg | Gly | Ile | Arg | Ala | Gly |  |
|                    |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |
| Phe                | Ser | Leu | Ala | Glu | Ser | Val | Asp | Glu | Leu | Ser | Phe | Ser | Gln | Pro | Phe |  |
|                    |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |
| Met                | Leu | Cys | Arg |     |     |     |     |     |     |     |     |     |     |     |     |  |
|                    |     | 115 |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <210> 523          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <211> 130          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <212> PRT          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <213> homo sapiens |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <400> 523          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| Arg                | Arg | Gln | Arg | Lys | Ala | Glu | Pro | Gly | Ala | Cys | Ala | Leu | Gly | Arg | Val |  |
| 1                  |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Gly                | Ser | Glu | Cys | Ile | Pro | Glu | Pro | Gly | Ala | Arg | Arg | Thr | Ala | Gln | Ala |  |
|                    |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Ala                | Gly | Leu | Arg | Ser | Val | Ser | Gly | Ala | Ala | Asn | Thr | Lys | Val | Arg | Glu |  |
|                    |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Leu                | Lys | His | Phe | Arg | Phe | Leu | Gly | Leu | Leu | Arg | Ser | Cys | Arg | Ser | Glu |  |
|                    | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Met                | Glu | Val | Asp | Ala | Pro | Gly | Val | Asp | Gly | Arg | Asp | Gly | Leu | Arg | Glu |  |
|                    | 65  |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Arg                | Arg | Gly | Phe | Ser | Glu | Gly | Gly | Arg | Gln | Asn | Phe | Asp | Val | Arg | Pro |  |
|                    |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |
| Gln                | Ser | Gly | Ala | Asn | Gly | Leu | Pro | Lys | His | Ser | Tyr | Trp | Leu | Asp | Leu |  |
|                    |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |

|     |     |            |     |     |     |     |            |     |     |     |     |            |     |     |     |
|-----|-----|------------|-----|-----|-----|-----|------------|-----|-----|-----|-----|------------|-----|-----|-----|
| Trp | Leu | Phe<br>115 | Ile | Leu | Phe | Asp | Val<br>120 | Val | Val | Phe | Leu | Phe<br>125 | Val | Tyr | Phe |
|-----|-----|------------|-----|-----|-----|-----|------------|-----|-----|-----|-----|------------|-----|-----|-----|

|     |            |
|-----|------------|
| Leu | Pro<br>130 |
|-----|------------|

<210> 524  
 <211> 78  
 <212> PRT  
 <213> homo sapiens

<400> 524

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| Ile<br>1  | Ser       | Ala       | Asn       | Lys<br>5 | Ser       | Trp       | Gln       | Lys       | Ile<br>10 | His       | Lys       | Glu       | Lys       | His<br>15 | His |
| His       | Ile       | Glu       | Lys<br>20 | Asp      | Glu       | Lys       | Pro       | Glu<br>25 | Val       | Gln       | Pro       | Val       | Gly<br>30 | Val       | Phe |
| Gly       | Lys       | Pro<br>35 | Ile       | Cys      | Pro       | Arg       | Leu<br>40 | Arg       | Pro       | His       | Ile       | Glu<br>45 | Val       | Leu       | Pro |
| Pro       | Ser<br>50 | Leu       | Ala       | Lys      | Ala       | Ser<br>55 | Pro       | Leu       | Pro       | Glu       | Thr<br>60 | Ile       | Ser       | Thr       | Ile |
| Asn<br>65 | Thr       | Arg       | Cys       | Val      | His<br>70 | Leu       | His       | Leu       | Ala       | Pro<br>75 | Ala       | Ala       | Ser       |           |     |

<210> 525  
 <211> 95  
 <212> PRT  
 <213> homo sapiens

<400> 525

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Gly<br>1  | Leu       | Thr       | Ser       | Lys<br>5  | Phe       | Cys       | Leu       | Pro       | Pro<br>10 | Ser       | Leu       | Lys       | Pro       | Arg<br>15 | Arg       |
| Ser       | Arg       | Arg       | Pro<br>20 | Ser       | Arg       | Pro       | Ser       | Thr<br>25 | Pro       | Gly       | Ala       | Ser       | Thr<br>30 | Ser       | Ile       |
| Ser       | Leu       | Leu<br>35 | Gln       | Leu       | Arg       | Asn       | Asn<br>40 | Pro       | Arg       | Asn       | Arg       | Lys<br>45 | Cys       | Leu       | Ser       |
| Ser       | Arg<br>50 | Thr       | Leu       | Val       | Phe       | Ala<br>55 | Ala       | Pro       | Glu       | Thr       | Glu<br>60 | Arg       | Ser       | Pro       | Ala       |
| Ala<br>65 | Cys       | Ala       | Val       | Arg       | Arg<br>70 | Ala       | Pro       | Gly       | Ser       | Gly<br>75 | Met       | His       | Ser       | Glu       | Pro<br>80 |
| Thr       | Leu       | Pro       | Ser       | Ala<br>85 | Gln       | Ala       | Pro       | Gly       | Ser<br>90 | Ala       | Phe       | Arg       | Cys       | Leu<br>95 |           |

<210> 526  
 <211> 112  
 <212> PRT  
 <213> homo sapiens

<400> 526

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Ser<br>1 | Leu | Asn | Ser | Thr<br>5 | Phe | Ser | Val | Leu | Pro<br>10 | Gln | Lys | Phe | Pro | Gln<br>15 | Phe |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|

00222T"56552960

|           |           |           |            |           |           |           |           |            |           |           |           |           |            |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Gln       | Gln       | His       | Arg<br>20  | Ala       | Val       | Tyr       | Asn       | Ser<br>25  | Phe       | Ser       | Phe       | Pro       | Gly<br>30  | Gln       | Ala       |
| Ala       | Arg       | Tyr<br>35 | Pro        | Trp       | Met       | Ala       | Phe<br>40 | Pro        | Arg       | Asn       | Ser       | Ile<br>45 | Met        | His       | Leu       |
| Asn       | His<br>50 | Thr       | Ala        | Asn       | Pro       | Thr<br>55 | Ser       | Asn        | Ser       | Asn       | Phe<br>60 | Leu       | Asp        | Leu       | Asn       |
| Leu<br>65 | Pro       | Pro       | Gln        | His       | Asn<br>70 | Thr       | Gly       | Leu        | Gly       | Gly<br>75 | Ile       | Pro       | Val        | Ala       | Gly<br>80 |
| Glu       | Glu       | Glu       | Val        | Lys<br>85 | Val       | Ser       | Thr       | Met        | Pro<br>90 | Leu       | Ser       | Thr       | Ser        | Ser<br>95 | His       |
| Ser       | Leu       | Gln       | Gln<br>100 | Gly       | Gln       | Gln       | Pro       | Thr<br>105 | Ser       | Leu       | His       | Thr       | Thr<br>110 | Val       | Ala       |

<210> 527  
 <211> 72  
 <212> PRT  
 <213> homo sapiens

<400> 527

|           |           |           |           |          |           |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Arg<br>1  | Phe       | Arg       | Pro       | Cys<br>5 | His       | Cys       | Gln       | Pro       | Leu<br>10 | Pro | Ile       | His       | Tyr       | Asn<br>15 | Lys |
| Asp       | Ser       | Ser       | Leu<br>20 | Gln      | Val       | Ser       | Thr       | Leu<br>25 | Leu       | Trp | Pro       | Asp       | Asn<br>30 | Arg       | Thr |
| Glu       | Arg       | Arg<br>35 | Gly       | Leu      | Asp       | Ser       | Gly<br>40 | Val       | Leu       | Ala | Trp       | Ala<br>45 | Thr       | Gly       | Phe |
| Leu       | His<br>50 | Asp       | Ser       | Phe      | Met       | Ile<br>55 | Leu       | Leu       | Leu       | Met | Tyr<br>60 | Thr       | Pro       | Arg       | Arg |
| Ala<br>65 | Asn       | Ile       | Asn       | Val      | Pro<br>70 | His       | Ala       |           |           |     |           |           |           |           |     |

<210> 528  
 <211> 102  
 <212> PRT  
 <213> homo sapiens

<400> 528

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Arg<br>1  | Asn       | His       | Ala       | Lys<br>5 | Ile       | Gln       | Leu       | Pro       | Met<br>10 | Gln       | Ala       | Pro       | Gln       | Ser<br>15 | Leu       |
| Ile       | Leu       | Ser       | Ser<br>20 | Gln      | Phe       | Cys       | Cys       | Gln<br>25 | Ala       | Thr       | Val       | Val       | Trp<br>30 | Arg       | Leu       |
| Val       | Gly       | Cys<br>35 | Cys       | Pro      | Cys       | Cys       | Asn<br>40 | Glu       | Trp       | Glu       | Glu       | Val<br>45 | Asp       | Ser       | Gly       |
| Met       | Val<br>50 | Glu       | Thr       | Phe      | Thr       | Ser<br>55 | Ser       | Ser       | Pro       | Ala       | Thr<br>60 | Gly       | Ile       | Pro       | Pro       |
| Arg<br>65 | Pro       | Val       | Leu       | Cys      | Cys<br>70 | Gly       | Gly       | Arg       | Phe       | Lys<br>75 | Ser       | Lys       | Lys       | Leu       | Leu<br>80 |

09673395-122700

Phe Glu Val Gly Phe Ala Val Trp Phe Lys Cys Met Met Leu Leu Arg  
85 90 95

Gly Lys Ala Ile Gln Gly  
100

<210> 529  
<400> 529  
000

<210> 530  
<400> 530  
000

<210> 531  
<211> 1708  
<212> DNA  
<213> homo sapiens

<400> 531

|             |            |             |            |             |             |      |
|-------------|------------|-------------|------------|-------------|-------------|------|
| cctggaaaca  | agatccaaac | ccaagtgacc  | ccgccggaaa | gtgaccagct  | caggtttaaa  | 60   |
| aattccaaca  | aaccgacgtg | aacaaataga  | ccgaccaacc | aaatatacaa  | tccgtcaaaa  | 120  |
| tacattcact  | tccactacga | aaccccaaca  | aaggggtgtg | atgcccgcgc  | aggagagacg  | 180  |
| gtttttggtt  | catcaagtgt | gtggatcgtg  | atgttcgtat | gttcttccac  | ttcagtgaag  | 240  |
| ttctggatgg  | gaaccagctc | catattgcag  | atgaagtaga | gtttactgtg  | gttctctgata | 300  |
| tgctctctgc  | tcaaagaaat | catgctatta  | ggattaaaaa | acttcccaag  | ggcacggttt  | 360  |
| catttcattc  | ccattcagat | caccgttttc  | tgggcacggg | agaaaaagaa  | gccacttttt  | 420  |
| ccaatcctaa  | aaccactagc | ccaaataaag  | gcaaagagaa | ggaggctgag  | gatggcatta  | 480  |
| ttgcttatga  | tgactgtggg | gtgaaactga  | ctattgcttt | tcaagccaag  | gatgtggaag  | 540  |
| gatctacttc  | tcctcaaata | ggagataaag  | ttgaatttag | tattagttag  | aaacagaggc  | 600  |
| ctggacagca  | ggttgcaact | tgtgtgcgac  | ttttagggtc | taattctaac  | tccaagaggc  | 660  |
| tcttgggtta  | tgtggcaact | ctgaaggata  | attttggatt | tattgaaaca  | gccaatcatg  | 720  |
| ataaggaaat  | ctttttccat | tacagttagt  | tctctggtga | tgttgatagc  | ctggaactgg  | 780  |
| gggacatggt  | cgagtatagc | ttgtccaaag  | gcaaaggcaa | caaagtcagt  | gcagaaaaag  | 840  |
| tgaacaaaac  | acactcagtg | aatggcatta  | ctgaggaagc | tgatcccacc  | atttactctg  | 900  |
| gcaaagtaat  | tcgccccctg | aggagtgttg  | atccaacaca | gactgagtac  | caagggaatga | 960  |
| ttgagattgt  | ggaggagggc | gatatgaaag  | gtgaggtcta | tccatttggc  | atcgttggga  | 1020 |
| tggccaacaa  | aggggattgc | ctgcagaaaag | gggagagcgt | caagttccaa  | ttgtgtgtcc  | 1080 |
| tgggccaana  | tgacaaaact | atggcttaca  | acatcacacc | cctgcgcagg  | gccacagtgg  | 1140 |
| aatgtgtgaa  | agatcagttt | ggcttcatta  | actatgaagt | aggagatagc  | aagaagctct  | 1200 |
| ttttccatgt  | gaaagaagtt | caggatggca  | ttgagctaca | ggcaggagat  | gagggtggagt | 1260 |
| tctcagtgat  | tcttaatcag | cgcactggca  | agtgcagcgc | ctgtaatgtt  | tggcagagtct | 1320 |
| gtgagggccc  | caaggctgtt | gcagctcctc  | gacctgatcg | gttgggtcaat | cgcttgaaga  | 1380 |
| atatcactct  | ggatgatgcc | agtgtcctc   | gcctaattgt | tcttcgtcag  | ccaaggggac  | 1440 |
| cagataaactc | aatgggggtt | ggtgcagaaa  | gaaagatccg | tcaagctggg  | gtcattgact  | 1500 |
| aaccacatcc  | acaaagcaca | ccattaatcc  | actatgatca | agttgggggg  | aatctggtga  | 1560 |
| agggttctga  | atatctccct | cttcacccct  | cccgaatct  | ggaatactta  | ttctattgag  | 1620 |
| ctattacacc  | agttttaaca | ccttcctcgt  | gttatgttta | aaaaaataaa  | taaatttaag  | 1680 |
| aaaaccattt  | taaataatga | aaagttag    |            |             |             | 1708 |

<210> 532  
<211> 2128  
<212> DNA  
<213> homo sapiens

<400> 532

|            |            |            |            |            |            |     |
|------------|------------|------------|------------|------------|------------|-----|
| ctgtatccta | atctcttggg | gaatgaactc | attcttaaac | agaagcaaag | atctgaggaa | 60  |
| aagaggttca | aattggacca | ctcagttagt | agcaccaatg | gccacaggtg | gcagatattt | 120 |
| caagattggt | tgggaactga | ccaagataac | cttgatttgg | ccaatgtcaa | tcttatgttg | 180 |
| gagttactag | tgacagaaga | gaaacaactg | gaagcagaat | cacatgcagc | ccaactacag | 240 |

09673395.122700

|             |             |            |            |            |             |      |
|-------------|-------------|------------|------------|------------|-------------|------|
| attctttatgg | aattcctcaa  | ggttgcaaga | agaaataaga | gagagcaact | ggaacagatc  | 300  |
| cagaaggagc  | taagtgtttt  | ggaagaggat | attaagagag | tggaagaaat | gagtggttta  | 360  |
| tactctcctg  | tcagtggagga | tagcacagtg | cctcaatttg | aagctccttc | tccatcacac  | 420  |
| agtagtatta  | ttgattccac  | agaatacagc | caacctccag | gtttcagtg  | cagttctcag  | 480  |
| acaaagaaac  | agccttggtg  | taatagcacg | ttagcatcaa | gacgaaaacg | acttactgct  | 540  |
| cattttgaag  | acttggagca  | gtgttacttt | tctacaagga | tgtctcgtat | ctcagatgac  | 600  |
| agtcgaactg  | caagccagtt  | ggatgaattt | caggaatgct | tgtccaagtt | tactcgatat  | 660  |
| aattcagtac  | gaccttttagc | cacattgtca | tatgctagt  | atctctataa | tggttccagt  | 720  |
| atagtctcta  | gtattgtaatt | tgaccgggat | tgtgactatt | ttgcgattgc | tggagttaca  | 780  |
| aagaagatta  | aagtcataag  | atatgacact | gtcatccagg | atgcagtgga | tattcattac  | 840  |
| cctgagaatg  | aaatgacctg  | caattcgaaa | atcagctgta | tcagttggag | tagttaccat  | 900  |
| aagaacctgt  | tagctagcag  | tgattatgaa | ggcactgtta | ttttatggga | tggattcaca  | 960  |
| ggacagaggt  | caaaggtcta  | tcaggagcat | gagaagaggt | gttggagtgt | tgactttaat  | 1020 |
| ttgatggatc  | ctaaactctt  | ggcttcaggt | tctgatgatg | caaaagtga  | gctgtggtct  | 1080 |
| accaatctag  | acaactcagt  | ggcaagcatt | gaggcaaagg | ctaatgtgtg | ctgtgttaaa  | 1140 |
| ttcagccctt  | cttcagata   | ccatttggct | ttcggctgtg | cagatcactg | tgtccactac  | 1200 |
| tatgatcttc  | gtaacactaa  | acagccaatc | atggtattca | aaggacaccg | taaagcagtc  | 1260 |
| tcttatgcaa  | agtttgtgag  | tggtgaggaa | attgtctctg | cctcaacaga | cagtcagcta  | 1320 |
| aaactgtgga  | atgtagggaa  | accatactgc | ctacgttctt | tcaagggtca | tatcaatgaa  | 1380 |
| aaaaactttg  | taggcctggc  | ttccaatgga | gattatatag | cttgtggaag | tgaaaataac  | 1440 |
| tctctctacc  | tgtactataa  | aggactttct | aagactttgc | taacttttaa | gtttgatacal | 1500 |
| gtcaaaagt   | ttctcgacaa  | agaccgaaaa | gaagatgata | caaatgaatt | tgttagtgct  | 1560 |
| gtgtgctgga  | gggcactacc  | agatggggag | tccaatgtgc | tgattgctgc | taacagtcag  | 1620 |
| ggtacaatta  | aggtgctaga  | attggtatga | agggttaact | caagtcaa   | tgtacttgat  | 1680 |
| cctgctgaaa  | tacatctgca  | gctgacaatg | agagaagaaa | cagaaaatgt | catgtgatgt  | 1740 |
| ctctccccaa  | agtcatcatg  | ggttttggat | ttgttttgaa | tatttttttc | ttttttcttl  | 1800 |
| ttccctcctt  | tatgaccttt  | gggacattgg | gaatacccag | ccaactctcc | accatcaatg  | 1860 |
| taactccatg  | gacattgctg  | ctcttggtgg | tgttatctaa | tttttgtgat | agggaaacaa  | 1920 |
| attcttttga  | ataaaaaata  | ataacaaaac | aataaaaagt | tattgagcca | caaaaaaaaaa | 1980 |
| aaaaaaaaaa  | aaaaaaaaaa  | acaaaagaga | aaacaaaggt | tacgaagtag | catatgtgaa  | 2040 |
| ctataatgta  | acagtgaata  | atttgtaaag | ttcgtatttc | ccaacctctt | tgggaattac  | 2100 |
| acatatcaat  | ataaaacaaa  | tataaaqt   |            |            |             | 2128 |

```
<210> 533
<211> 2640
<212> DNA
<213> homo sapiens
```

<400> 533

|             |             |             |             |             |             |      |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ctagcaagca  | ggtaaacgag  | ctttgtacaa  | acacacacag  | accaacacat  | cgggggatgg  | 60   |
| ctgtgtgttg  | ctagagcaga  | ggctgattaa  | acactcagtg  | tgttggtctt  | ctgtgccact  | 120  |
| cctggaaaat  | aatgaattgg  | gtaaggaaca  | gttaataaga  | aaatgtgcct  | tgctaactgt  | 180  |
| gcacattaca  | acaaagagct  | ggcagctcct  | gaaggaaaag  | ggcttgtgcc  | gctgccgttc  | 240  |
| aaacttgtca  | gtcaactcct  | gccagcagcc  | tcagcgtctg  | cctccccagc  | acaccctcat  | 300  |
| tacatgtgtc  | tgtctggcct  | gatctgtgca  | tctgtctcga  | gacgtctctg  | acaagctcggg | 360  |
| aattttctcta | ttttctccact | ggtgcaaaga  | gcggatttct  | ccctgcttct  | ctctgtcac   | 420  |
| ccccgctcct  | ctccccagg   | aggctccttg  | acttatggta  | gctttggact  | tgcttccccg  | 480  |
| tctgactgtc  | cttgacttct  | agaatggaag  | aagctgagct  | ggtgaagggg  | agactccagg  | 540  |
| ccatcacaga  | taaaagaaaa  | atacaggaag  | aaatctcaca  | gaagcgtctg  | aaaatagagg  | 600  |
| aagacaaaact | aaagcaccag  | catttgaaga  | aaaaggcctt  | gagggagaaa  | tggcttctag  | 660  |
| atggaatcag  | cagcggaaaa  | gaacaggaag  | agatgaagaa  | gcaaaatcaa  | caagaccagc  | 720  |
| accagatcca  | ggttctagaa  | caaagtatcc  | tcaggcttga  | gaaagagatc  | caagatcttg  | 780  |
| aaaaagctga  | actgcaaatc  | tcaacgaagg  | aagaggccat  | tttaaagaaa  | ctaaagtcac  | 840  |
| ttgagcggac  | aacagaagac  | attataagat  | ctgtgaaagt  | ggaaagagaa  | gaaagagcag  | 900  |
| aagagtcaat  | tgaggacatc  | tatgctaata  | tccctgacct  | tccaaagtcc  | tacatacctt  | 960  |
| ctagggttaag | gaaggagata  | aatgaagaaa  | aagaagatga  | tgaacaaaat  | aggaaagctt  | 1020 |
| tatatgccat  | ggaaattaaa  | gttgaaaaag  | acttgaagac  | tggagaaaagt | acagttctgt  | 1080 |
| cttccaatac  | ctctggccat  | cagatgactt  | taaaagggtac | aggagtaaaa  | gtttaagatg  | 1140 |
| atgggcaaaa  | gtccagtgta  | ttcagtaaa   | tgctaatac   | aagttggag   | tcaatggcac  | 1200 |
| cgatggcctg  | gcaccagttg  | aagttagagga | acttctaaga  | caagcctcag  | agagaaactt  | 1260 |
| taaatcccca  | acagagtatc  | atgagcctgt  | atatgccaat  | cccttttaca  | ggcctacaac  | 1320 |



|             |            |            |            |            |               |
|-------------|------------|------------|------------|------------|---------------|
| gagcccagcc  | cctcctcttc | ctgggtggga | aactgcgatt | caaactgcca | ggtgggaagt240 |
| ccatgggag   | gaaacaggct | ctcgnnttgc | taagagtctc | tgtttcccc  | tttttccctt300 |
| tatgccta    | taataaat   | catttttctc | acccttcaaa | cagcctgtga | gcctaaattt360 |
| ttgtggccat  | gggacagaca | aggaccccg  | cttcagctga | actaaggaga | aagtcccaaa420 |
| acaatgggaa  | gaaaggcagg | gagtagacat | ccaatttcct | ggcgtggatt | gtggaggggg480 |
| accatgggtt  | tgaccagatg | tgtatcagga | gctgtgttgc | aggaagtctc | aggaatgaag540 |
| ttgatagctt  | tctttccatc | acatgatgac | tgaaaagacg | aaggcatcta | atgagttaga600 |
| gtcacaccat  | ctcatgcctg | tatactatca | aacaactttt | gggaagctag | ccttgggtgg660 |
| gaaaacatca  | tttcttaact | gaatgcctgg | atgcaagcaa | agtctcattc | ttgatcatga720 |
| tgagggtttac | catgtcttct | tgacaggatc | ctgcaaaaca | accacaatt  | gctactatga780 |
| catgcaactc  | catggttaat | tccttgata  | gcaaatagct | cg         | 822           |

<210> 536  
 <211> 2703  
 <212> DNA  
 <213> homo sapiens  
  
 <400> 536

|             |            |            |             |            |             |      |
|-------------|------------|------------|-------------|------------|-------------|------|
| agttcggcac  | agggggagga | acctggccct | gggaggaggc  | tgttgcggtg | tcctagagaa  | 60   |
| tcccgttctg  | aagggaagag | catgtttgcg | ggcgccccca  | ccatgcgtga | gagctcccc   | 120  |
| aaacagtaca  | tgacagctcg | aggcaggggc | ttgctgggtc  | tgatgttcat | gacctcctt   | 180  |
| cactttgacg  | ccagcttctt | ttctattgtc | cagaacatcg  | tgngcacan  | gctctgatga  | 240  |
| ttttnagtgg  | ccattgggtt | taaaaccaag | ctggctgctt  | tgactcttgt | tgtgtggctc  | 300  |
| tttgccatca  | acgtatattt | caacgccttc | tgaccatttc  | cagtctacaa | ngcccatgca  | 360  |
| tgacttccnt  | gaaatacgac | nttcttccag | accatgtcgg  | tgattggggg | cttgctcctg  | 420  |
| gntggntggc  | cctgggccc  | ngggggtgtc | tccatggatg  | agaagaagaa | ggagtggtaa  | 480  |
| cagtcacaga  | tccttacctg | cctggcntna | agaccngtn   | ggcgtcaag  | gnactggntt  | 540  |
| cnggggtgga  | ttcaacnaaa | anctgnccag | cttttnatgt  | atcctcttcc | cttccccctc  | 600  |
| cttggtaaa   | gcacagatgt | tttgagaanc | tttatttgca  | gagacacctg | agaatncgat  | 660  |
| ggntcagctc  | tgctctggag | ccacagctcg | gcgtctgacc  | cttcagtngc | aggccnagcc  | 720  |
| tgggcangctg | gnaagccntc | ccccnacgcc | gaggttttng  | gnagtgaanc | agncccgtt   | 780  |
| nggntctgtg  | catcntcagt | ccntattttt | gagttttttt  | gtgggggtan | ncaggagggg  | 840  |
| gccttcaagc  | tgtactgtga | ngcagacgca | nttggtatta  | tcattcaaag | cagtctccct  | 900  |
| cttnatttgt  | aagttnnaca | tttttnnagc | ggaaactact  | aaattatttt | gggntgggtc  | 960  |
| agccaaaac   | caaaacagtt | aatctccent | ggntttnaaa  | atcacaccag | tggnctttng  | 1020 |
| atgttggttc  | tgccccgc   | tngtatttta | taggnnaata  | gtgaaaacat | ttagggnaca  | 1080 |
| cccaanagaa  | tgatngcagt | attaaagggg | tggtagaagc  | tgctgtttat | gataaaagtc  | 1140 |
| atcggtcaga  | aaatcagctt | ggattnggtg | ccaagtgnnn  | ttttattggg | taacaccctg  | 1200 |
| ggagttttag  | tagcttgagg | caaggtggag | gggcaagaag  | tccttggggg | agctgctggg  | 1260 |
| ctgggtngct  | ngctggcctc | caagctggca | gtgggaaggg  | ctagtgnaga | ccacacangg  | 1320 |
| ggtagcccn   | agcagcagca | ccctgcaang | ccagccntgg  | ccnagctnng | ctcnagacca  | 1380 |
| gcnttngcag  | angccgcagn | ccgctgttng | ggcanggggg  | tgtnggcagg | agctcccnag  | 1440 |
| cactnngnag  | accacaggac | ntcaaccag  | tnacctcac   | atggggccnt | tttctntgag  | 1500 |
| aaggtctncg  | aaagcgcagg | ccgccctgg  | ctgagcagca  | ccgccctttc | ccagctgcac  | 1560 |
| tcgccctgtg  | gacagccccg | acacaccanc | tttccctngag | gctgtcgctc | actcagattg  | 1620 |
| tccggttgct  | atgccgaatg | cagccaaaaa | ttccttttta  | caatttgtga | tgccctaccg  | 1680 |
| atgttgatctt | aatcctgtat | ttaaagtttt | ctaacaactgn | nccttaaact | gtgtttctct  | 1740 |
| ttttggggga  | gcttaactgc | ttgttgctcc | ctgtcgtctn  | gcaccatagt | aaatgccaca  | 1800 |
| agggtagctg  | aacacctctc | tggcccttag | acctatctgg  | ggacaggctg | gctcagntctg | 1860 |
| tctnccangg  | gctgctgcgg | cccagccccg | agcctgcctc  | cctcttggnc | ctctcatcca  | 1920 |
| ttggnctctg  | cagggcangg | ggtgaggcag | gtttctngcn  | tcataagtgc | ttttnggaag  | 1980 |
| tcacctacct  | ttttaacaca | gccgaactan | gtcccaacgc  | gntttgcaaa | tattccccctn | 2040 |
| ggtagcctac  | ttnccttanc | ccccgaanta | ttggtaagat  | cgagcaatgg | nncttcagga  | 2100 |
| ncatnngggt  | ctcttctcct | gtgatcattn | caagtgtca   | ctgcnatnga | angactnnggc | 2160 |
| ttgntcntca  | gtgtttcnaa | cctncaccag | ggntgtctc   | ttggtccacn | acctcgctcc  | 2220 |
| ctgttagtgc  | cgtatgacag | cccccnatcn | aatgacctt   | ggccnaagtn | cacnggtttc  | 2280 |
| tctgtggtn   | aaggttggtt | ggctgattgg | tggaaangtn  | aggggtngac | cnaaanggag  | 2340 |
| gnccacgtga  | ngcagntcna | gcaccanngt | tnctgcance  | agcagcngcc | tccgtnccta  | 2400 |
| gtgggtgttn  | cctngttttn | tncttgccc  | ntgggtnggg  | ctnagggnc  | tgattcgggn  | 2460 |
| aangatgcct  | ttgncanggg | aggggaggan | taagtgggat  | ctaccnaant | tngattctgg  | 2520 |

0963395 12700



caaaacaant ttctaagant ttttttgctt tatgtgggna aacagatcta aatctcattt2580  
 tatgtctgtat tttatatcnt tnagttgtgt ttgaaaacng tttntgattt ttggaaacac2640  
 atcaaaataa ataatggcgt ttgttgtaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa2700  
 aaa 2703

<210> 537  
 <211> 2664  
 <212> DNA  
 <213> homo sapiens

<400> 537

ctcccaggga gtgctgagta gtgatggtgt ctggagggtc aaatccattc ccaatggcaa 60  
 aggttctctca ccactcccca ccgctacaac tccaaaacca cttatcccta cagaggccag 120  
 catcagggtc tggggcacga gcggcacgag ccatctccat ccccgagca tctgtatgat 180  
 tcagaagtac aaccacgatg gggaagcagg tcggctggag gcttttagcc aaggggaaag 240  
 tgtcctaaag gaacccaagt accaggaaga gctggaggac aggctgcatt tctacgtgga 300  
 ggaatgtgac tacttgacag gcttccagat cctgtgtgac ctgcacgatg gcttctctgg 360  
 ggtaggcgcg aaggcggcag agctgctaca agatgaatat tcaggggcggg gaataataac 420  
 ctggggcctg ctacctgggt cctaccatcg tggggaggcc cagagaaaca tctatcgtct 480  
 attaaacaca gcttttgggt tegtgcacct gactgtcac agctctcttg tctgccccct 540  
 gtccttgggt gggagcctgg gctgcgacc cgagccacct gtcagcttcc cttacctgca 600  
 ttatgatgcc actctgcctt tccactgcag tgccatcctg gctacagccc tggacacagt 660  
 cactgttctt tatcgccctg gttcctctcc agtttccatg gttcatctgg ctgacatgct 720  
 gagcttctgt gggaaaaagg tgggtgacagc aggagcaatc atccctttcc ccttggtctc 780  
 aggccagtcc ctctctgatt cctgatgca gtttggagga gccaccccat ggacccact 840  
 gtctgcatgt ggggagcctt ctggaacacg ttgctttgcc cagtcagtgg tgctgagggg 900  
 gtatagacag agcatgccac acaagccaca gaaccaaagg gacacctcca ccctctgccc 960  
 ttcattgcatg taccactggg gaagaaatct tggctcagta tttacaacag cagcagcctg1020  
 gagtcattgag ttcttcccat ctgctgctga ctccctgcag ggtggctcct ccttaccctcc1080  
 acctcttctc aagctgcagt ccaccgggta tgggtctgga tgggtcccc aagggagcag1140  
 gtctctgttt tccctctccc ttccacagca gtggagagca tcccagtggt tggggcactg1200  
 tgttctctct cgtccctgca ccagaccctg gaagccttgg ccagagacct caccaaactc1260  
 gacttgccgc gctgggccag cttcatggat gctggagtgg agcacgatga cgtagcagag1320  
 ctgctgcagg agctacaaag cctggcccag tgctaccagg gtggtgacag cctcgtggac1380  
 taaagtctcc agtgtgggag aaaggagcta gtttgcaata aaaacagctg gatgcaggag1440  
 cccagtgtct tcatgcagag gagctcaatg tcgcgggact agctacacca acatattgcac1500  
 tttttacatt tagaaacact gtgattagac cacagaacaa taaatatgtg ccatcagacc1560  
 aaaaaaaagt agagaaagga gctgaactcc actctcgatg ctattttacag aggacatctg1620  
 taaagtcttc ataaaagacc ttgaatgatg cctaggatgg cagagccctt gggctctact1680  
 ccactctcca gcctttgtcc ttgtcctggc ctctctgctc ccagatctgt aaactgggct1740  
 caaggactgt acaagcagag tacaactacc ccctccccgg tgccaggggc cctgttgggt1800  
 ttggtcctgt gtagatgatt cccagagtct cattcatcca gctcctcttc agacagaagg1860  
 tccccatggg cagacagctg gtctgcattg ctggtactgg ttgcatcatc ctcatcctca1920  
 gagctggctt cacaggcagt gtggaagagc tgcatgagtt ctcgaaaacg gtgggaaacc1980  
 tcagcagggg tcttatttcc cagctgctgg gagatgatgt tgaaggctct tggctgtgcc2040  
 ccttgctcct ggcacatggg gaggatcaca cggtcagctt cccttgcca caggacaacc2100  
 ttttccccag tggagctgac cttgctgttg ttggcacaca ccgtagcttc tgggacctt2160  
 ggctgctgct cccctctgg acccttggcc tgtgttccac tgtcttttag caaacccct2220  
 ctaggggctt tgggagaagt ctctgaggtg tcaattcctg atggagattc atggacagg2280  
 cagtcctgtt ctcttgtctt caccctagct cctcttgagg gcagccatct ctcttgagt2340  
 tctggtttcc cggacacatg tcttctccct gcatctctgg tctttgagga aacaggactc2400  
 aggaaggaag caggggggttc cacggtaacca ggcaatttct cagtttctga tgcacccag2460  
 accagcatca aagcctctga ctcaactcact gccttttggc cctccctctc tttctgaagt2520  
 ctgggggatg ccttggggca ggagcgaacc tcaggcccaa cctgggttct cttacagtg2580  
 tacagtacag ctccagttgt ggggggaaat tgaggagtct ctggtgaatg aggtgggtggg2640  
 ccatccagga ggagccgttc tgta 2664

<210> 538  
 <211> 3888  
 <212> DNA

0967395 12200

<213> homo sapiens

<400> 538

|             |             |             |             |             |             |      |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| gaattcccg   | ccggactgac  | ggagcccaact | gcgggtgcggg | cgttggcgcg  | ggcacggagg  | 60   |
| acccgggag   | gcagcgcaag  | cgaccccgag  | cggagccccg  | gagccatggc  | cctgagcgag  | 120  |
| ctggcgctgg  | tccgctggct  | gcaggagagc  | cgccgctcgc  | ggaagctcat  | cctgttcac   | 180  |
| gtgttcctgg  | cgctgctgct  | ggacaacatg  | ctgctcactg  | tcgtgggtccc | catcatcca   | 240  |
| agttatctgt  | acagcattaa  | gcatgagaag  | aatgctacag  | aaatccagac  | ggccaggcca  | 300  |
| gtgcacactg  | cctccatctc  | agacagcttc  | cagagcatct  | tctcctatta  | tgataactcg  | 360  |
| actatgggtca | ccgggaatgc  | taccagagac  | ctgacacttc  | atcagaccgc  | cacacagcac  | 420  |
| atgggtgacca | acgcgtccgc  | tgttccttcc  | gactgtccca  | gtgaagacaa  | agacctcctg  | 480  |
| aatgaaaacg  | tgcaagttgg  | tctgttgggt  | gcctcgaaag  | ccaccgtcca  | gctcatcacc  | 540  |
| aaccctttca  | taggactact  | gaccaacaga  | attggctatc  | caattcccat  | atttgcggga  | 600  |
| ttctgcatca  | tgtttgtctc  | aacaattatg  | tttgccttct  | ccagcagcta  | tgccctcctg  | 660  |
| ctgattgcca  | ggtcgctgca  | gggcatcggc  | tcgtcctgct  | cctctgtggc  | tgggatgggc  | 720  |
| atgcttgcca  | gtgtctacac  | agatgatgaa  | gagagaggca  | acgtcatggg  | aatcgcttgg  | 780  |
| ggaggcctgg  | ccatgggggt  | cttagtgggc  | cccccttcg   | ggagtgtgct  | ctatgagttt  | 840  |
| gtggggaaga  | cggctccgtt  | cctgggtgctg | gccgccctgg  | tactcttggg  | tggagctatt  | 900  |
| cagctctttg  | tgctccagcc  | gtcccgggtg  | cagccagaga  | gtcagaaggg  | gacacccta   | 960  |
| accacgctgc  | tgaaggaccc  | gtacatcctc  | attgctgcag  | gctccatctc  | ctttgcaaac  | 1020 |
| atgggcatcg  | ccatgctgga  | gccagccctg  | cccatctgga  | tgatggagac  | catgtgttcc  | 1080 |
| cgaaagtggc  | agctgggcgt  | tgccctcttg  | cagctagta   | tctcttatct  | cattggaacc  | 1140 |
| aatatttttg  | ggatacttgc  | acacaaaatg  | gggaggtggc  | tttgtgctct  | tctgggaatg  | 1200 |
| ataattgttg  | gagtcagcat  | tttatgtatt  | ccatttccaa  | aaaacattta  | tggactcata  | 1260 |
| gctccgaact  | ttggagtggg  | ttttgcaaat  | ggaatggtgg  | attcgtcaat  | gatgcctatc  | 1320 |
| atgggctacc  | tcgtagacct  | gcggcacgtg  | tcctctctatg | ggagtgtgta  | cgccattgctg | 1380 |
| gatgtggcat  | tttgtatggg  | gtatgctata  | ggctcctctg  | ctgggtgggtg | tattgcaaag  | 1440 |
| gcaattggat  | ttccatggct  | catgacaatt  | attgggataa  | ttgatattct  | ttttgcccc   | 1500 |
| ctctgctttt  | ttcttcgaag  | tccacctgcc  | aaagaagaaa  | aatggctat   | tctcatggat  | 1560 |
| cacaactgcc  | ctattaaaac  | aaaaatgtac  | actcagaata  | atatccagtc  | atatccgata  | 1620 |
| ggtgaagatg  | aagaatctga  | aagtgactga  | gatgatctcc  | tcaaaaatca  | tcaaatgtgt  | 1680 |
| taattgtata  | aaacagtgtt  | tccagtgaac  | caactcatcc  | agaactgtct  | tagtcatacc  | 1740 |
| atccatccct  | ggtgaaagag  | taaaaccaaa  | ggttattatt  | tcctttccat  | ggttatgggt  | 1800 |
| gattgccaac  | agccttataa  | agaaaaagaa  | gcttttctag  | gggtttgtat  | aaatagtgtt  | 1860 |
| gaaactttat  | tttatgtatt  | tcattttatt  | aaatatcata  | caatatattt  | tgatgaaata  | 1920 |
| ggtattgtgt  | aaatctataa  | atacttgaat  | ccaaaccaaa  | tataattttt  | taacttacat  | 1980 |
| taacaaacat  | ttgggcaaaa  | atcatattgg  | taatgagtg   | ttaaaattaa  | agcacacatt  | 2040 |
| atctctgaga  | ctcttccaac  | aaagagaaac  | tagaatgaag  | tctgaaaaac  | agaatcaagt  | 2100 |
| aagacagcat  | gttatatagt  | gacactgaat  | gttatttaac  | ttgtagttag  | tatcaatata  | 2160 |
| tttatgcgtt  | aaacagctag  | ttctctcaag  | tgtagaggac  | aagaacttgt  | gtcagttatc  | 2220 |
| ttttgatacc  | ataaatctta  | gctggcatta  | gttttctatg  | taatcaccta  | cctagagaga  | 2280 |
| gttgtaaaatt | atatgttaac  | atgttatctg  | gttggcagca  | aacactaaag  | ccaataaagg  | 2340 |
| aaaaacagta  | aatgtttccga | aagcagagaa  | aagcaaccac  | acatatgtgt  | atgaactaaa  | 2400 |
| agctttccct  | ttaagatgca  | tacttgtctt  | actggatgaa  | gaaaattgag  | ggtacatgta  | 2460 |
| ccttatactg  | tcaaggttgt  | ttaaacatga  | taagggtta   | cgccatctac  | ttcaagtttt  | 2520 |
| agaaaaggaa  | acaagaagct  | aaaaacagct  | gctctgactt  | taatatctga  | ctatatcttt  | 2580 |
| gatctgtttg  | caggtcatcc  | aagtgttttc  | taggaatata  | tttatatttag | gttgtctgaa  | 2640 |
| actactattt  | tttagactcc  | tgaaagtgtg  | tcacatcaat  | gtgaagacaa  | attttaaatg  | 2700 |
| aaaatgaaga  | atgaaattat  | gtcttgaatc  | atatattaag  | aagtaaaaa   | aatagtgtac  | 2760 |
| aggcagaaaa  | gaaaaatgga  | acatctaaaa  | atgtatgtgc  | taactatatc  | atccagtgtg  | 2820 |
| cagtgttgtg  | tatttttcta  | agcatgacaa  | acttgatgtg  | ccttttccagt | gtaacagcaa  | 2880 |
| atactgttag  | tgaacattgt  | caatttatgt  | cattttgtta  | agagatatga  | ctggagtgtg  | 2940 |
| cagtggtgaa  | tgtctctaat  | actacttgag  | aatcctgcag  | ttctataatc  | ataaacaata  | 3000 |
| attacttagt  | ttcggttaagc | taagattgtg  | tttgtgttaa  | cttcgacatc  | aaggagcaaa  | 3060 |
| gaactttaga  | acagactcct  | caatcttgtg  | actttcttat  | tctctaggaa  | agtaacactt  | 3120 |
| cgtttcatga  | agcttttctg  | tggggcttcg  | attatttcaa  | gtctgggttc  | taagtgcagt  | 3180 |
| gtgtttgaag  | caaacgaact  | tccaactcac  | ttatttggca  | ttgggcaact  | tggccaagtc  | 3240 |
| tgtactttg   | gaagatggct  | ctggaggaaa  | ctctcatatg  | gctaaaaagg  | caggctagtt  | 3300 |
| tcttactttc  | acaggggtag  | agccttaaaa  | aagaacgtgc  | tacaaattgg  | ttctcttga   | 3360 |
| gggtttctgg  | ttctccctgc  | ccccaatacc  | atatacttta  | ttgcaatttt  | atttttgcct  | 3420 |
| ttacggctct  | gtgtctttct  | gcaagaaggc  | ctggcaaaag  | tatgcctgct  | gttggctcct  | 3480 |
| cgggataaga  | taaaatataa  | ataaaacctt  | cagaactgtt  | ttggagcaaa  | agatagcttg  | 3540 |

00422T "56295" 122700

|            |             |             |            |            |                |
|------------|-------------|-------------|------------|------------|----------------|
| tacttgggga | aaaaaattct  | aagttctttt  | atatgactaa | tattcttggg | tagcaagact3600 |
| ggaaagaggt | gttttttttaa | aatgtacata  | ccagaacaaa | gaacatacag | ctctctgaac3660 |
| atattttttt | tgaacagagg  | tggttttttat | gtttggacct | ggtaatacag | atacaaaaac3720 |
| tttaatgagg | tagcaatgaa  | tattcaactg  | tttgactgct | aagtgtatct | gtccatattt3780 |
| tagcaagttt | acttaataaa  | tcttctgaac  | catgttttgt | gctgttttgt | attcctttat3840 |
| aaaccaaagt | ttgttggaat  | aaaatacata  | aggtatcatt | ttgaccgt   | 3888           |

<210> 539  
 <211> 3304  
 <212> DNA  
 <213> homo sapiens

<400> 539

|             |             |            |            |             |             |      |
|-------------|-------------|------------|------------|-------------|-------------|------|
| aaaccctctt  | ggctgtctgc  | tgtccaggga | gtcgccactc | ccttcattat  | agccttgctc  | 60   |
| agagtgcagc  | ggcaggcctg  | gggatggcct | cgggagaggg | accacagagc  | accagcctgc  | 120  |
| atggaacttc  | cttcctcact  | cagcttccca | cgttgccagc | tgggacaggg  | gagatggagt  | 180  |
| aattttgctg  | tggaaagact  | tcacgtcttg | ccgaatgaaa | gtcccgcctg  | tctgtcacgc  | 240  |
| tgatgcccgt  | gcagctgtct  | gagcaccggg | aatggaatga | gtctatgcac  | tccctccgga  | 300  |
| tcagtgtggg  | gggccttcct  | gtgctggcgt | ccatgaccaa | ggccgcggac  | ccccgcttcc  | 360  |
| gcccccgctg  | gaaggtgatc  | ctgacgttct | ttgtgggtgc | tgccatcctc  | tggctgctct  | 420  |
| gtccccaccg  | cccggccccc  | ggcaggcccc | ccaccacaaa | tgcacacaa   | tggaggctcg  | 480  |
| cggaggcgcc  | cgccaactgg  | tacaatgaca | cctacccctt | gtctccccc   | caaaggacac  | 540  |
| cggttgggat  | tcggtatcga  | atcgagttta | tgcgagacct | ggacacagag  | ccaaggcccc  | 600  |
| aagacgaaaa  | cacctggcgc  | agcgacctga | aaaagggtta | cctgaccttg  | tcagacagtg  | 660  |
| gggacaaggt  | ggccgtggaa  | tgggacaaa  | accatggggg | cctggagtcc  | cacctggcgg  | 720  |
| agaaggggag  | aggcatggag  | ctatccgacc | tgattgtttt | caatgggaaa  | ctctactccg  | 780  |
| tggatgaccg  | gacgggggtc  | gtctaccaga | tgaaggcgag | caaagccgtg  | ccctgggtga  | 840  |
| ttctgtccga  | cggcgacggc  | accgtggaga | aaggcttcaa | ggccgaatgg  | ctggcagtg   | 900  |
| aggacgagcg  | tctgtacgtg  | ggcggcctgg | gcaaggagt  | gacgaccact  | acgggtgatg  | 960  |
| tggatgaacg  | gaacccggag  | tgggtgaagg | tgggtgggta | caagggcagc  | gtggaccacg  | 1020 |
| agaactgggt  | gtccaaactac | aacgccttgc | gggctgctgc | cggcattccag | ccgccagctc  | 1080 |
| acctcatcca  | tgagtctgcc  | tgtggagtg  | agacgtgca  | gcgtgggttc  | ttcctgccc   | 1140 |
| gccgcgccag  | ccaggagcgc  | tacagcgaga | aggacgacga | gcgcaagggc  | gccaaacctgc | 1200 |
| tgtgagcgc   | ctccctgac   | ttcggcgaca | tcgtgtgag  | ccacgtcggg  | gcgggtggtcc | 1260 |
| ccactcacgg  | cttctcgtcc  | ttcaagtcca | tccccaacac | cgacgaccag  | atcattgtgg  | 1320 |
| ccctcaaata  | cgaggaggac  | agcggcagag | tcgctccta  | catcatggcc  | ttcacgctgg  | 1380 |
| acggggcgctt | cctgttgccg  | gagaccaaga | tcggaagcgt | gaaatacgaa  | ggcatcgagt  | 1440 |
| tcattttaact | caaaacggaa  | acactgagca | aggccatcag | gactcagctt  | ttataaaaaac | 1500 |
| aagaggagtg  | cacttttgtt  | ttgttttgtt | ctttttggaa | ctgtgcctgt  | gttggaggctc | 1560 |
| tggacagcga  | gcccagtcct  | gggccccata | gtggtgcggg | cactggaccc  | ccggggcccc  | 1620 |
| cggaggccgc  | gcttctgaact | gctttccatg | ctgccatctg | gtggtgattt  | cggctcacttc | 1680 |
| aggcattgac  | tcaaggcctg  | cctaactggc | tgggtcgttt | cttccatccg  | acctcgttttc | 1740 |
| ttttctttcc  | tatgttcttt  | tgttcagtga | atatccctag | agctcctacc  | atatgtcagg  | 1800 |
| ccctatgcct  | caccctgaga  | acgcagttag | catgaggtgg | acctgtttgc  | tgggaacccc  | 1860 |
| aggtcacccc  | cttttcttcc  | caaacttggt | gccttggaag | aatcagggtc  | agccctgaag  | 1920 |
| atccttgggg  | aagaaaatgt  | ttatgttgca | gggtattgca | tggtcacagag | tgagggggcag | 1980 |
| gcccctgggg  | gacacatctg  | cccacagctg | cacaggccag | gggcacaggg  | acatctgttg  | 2040 |
| gttctcaggg  | ctcagataaa  | accatctccg | catcatatgg | ccagtgaccg  | ctttctccct  | 2100 |
| tcaagaaaaa  | tctgtggctg  | tgcagtactt | tgaagtttta | attattaacc  | tgctttaatt  | 2160 |
| aaagcagttt  | cctttcttat  | aaagtggaa  | caccaaatct | tatcacacag  | agcacagtcc  | 2220 |
| tgtagttacc  | cagcccgtct  | cagcagtgcg | ggagattgta | aggaagcggg  | ggcggctggg  | 2280 |
| gaagcaagtc  | tcacatgtcg  | gcgttcttgg | ccaatggata | caaagataaa  | gaaaatgttg  | 2340 |
| cctttttcta  | ggaactgtca  | gaaatcctca | tgcttttcaa | gacttctgtg  | aatgacttga  | 2400 |
| attttttatt  | ccctgcctag  | ggtctgtgaa | cgaggcctgt | ctctccctg   | gggttcttct  | 2460 |
| ccatggcctt  | tatttctcct  | cttccagtgg | gagttttgca | ggctcttctc  | tgtggaaact  | 2520 |
| tcacgagcgt  | tggctgggccc | tcggcttcgc | tggagtgtac | tccagggtga  | aggcagagt   | 2580 |
| ggattttgaga | cccaggtaag  | gcacgaccca | ggctggaag  | ggacgtttcc  | atcattcaca  | 2640 |
| gtgcccctccc | cacaggaact  | acctcacccc | gacccccacc | ctcactccta  | ccccaccggg  | 2700 |
| cgatcgtcag  | gtgggccacg  | gtgggccgga | gggtgccggc | tctggctgtc  | cctgtgccgg  | 2760 |
| tccctcacaa  | acctctcccc  | ctttgaaact | caagcacagc | tgcgaggagg  | gcagcgagga  | 2820 |
| gggacccctc  | tctcatgggt  | gtctctttcc | cccgtatgt  | cataggtagt  | ggaggaagcg  | 2880 |

|            |            |            |            |            |            |      |
|------------|------------|------------|------------|------------|------------|------|
| aaggaagtga | acgctgaatg | tgacgcattt | ctgaagagct | cagctgtcac | cgggcatagc | 2940 |
| ctggaagccc | caagtctgtt | ctgactttgc | ctggctgtct | ccttgaccgc | cctcctagat | 3000 |
| cattgtcctt | gatgtccagg | ctgggtcatt | taaaatagag | atgcaatcag | gaagggtggg | 3060 |
| ggacttggga | ctgtggctga | attgagacct | tgctgatgta | ttcatgtcag | cacctgagtc | 3120 |
| acagcccagg | tgcccgggag | cagcctcttc | gcataggcag | tgatttgcca | ttactttaaa | 3180 |
| gctcaccttt | tttcttcccc | tctctgttcg | ctgctgtcag | cataatgatt | gtgttccttc | 3240 |
| cctatgggat | ccatctgttt | tgtaaacaat | aaagcgtctg | agggagtgtg | aaaaacagat | 3300 |
| ggat       |            |            |            |            |            | 3304 |

<210> 540  
 <211> 863  
 <212> DNA  
 <213> homo sapiens

<400> 540

|            |            |            |            |            |            |     |
|------------|------------|------------|------------|------------|------------|-----|
| caggattgaa | acaagatggc | gggttcgtgg | tgagaagccg | tcaaggagta | gaaattggta | 60  |
| tgcttagaag | cagattctaa | aagcagtttc | tcttcagaac | atcttttttc | ataccacttg | 120 |
| ataagcatct | tgaaacacca | tggctgtagc | tgcaagtaaa | tgggtgatgt | caaagagaac | 180 |
| tatcttgaaa | catttatctt | cagtcctaaa | tggagcttta | tattgtgttt | gtcataaatc | 240 |
| tacgtattct | cctctaccag | atgactataa | ttgcaacgta | gagcttgctc | tgacttctga | 300 |
| tggcaggaca | atagtatgct | accacccttc | tgtggacatt | ccatatgaac | acacaaaacc | 360 |
| tatccctcgg | ccagatcctg | tgcataataa | tgaagaaaca | catgatcaag | tgctgaaaac | 420 |
| cagattggaa | gaaaaagttg | aacaccttga | ggaaggacct | atgatagaac | aacttagcaa | 480 |
| aatgttcttt | actactaagc | accgttggta | tcctcatgga | cggtatcaca | gatgtcgtaa | 540 |
| gaatctgaat | cctccaaaag | acagatgatg | cggaggttcc | tgggggaatc | aaagagaaat | 600 |
| gtgcctcatt | tgccatttga | gaaaatgcag | tctggtgtat | tcagtaatat | atagtaaagt | 660 |
| aataatgata | aaatatcttt | tcatatatta | gaatgtgtac | ttttatataa | agtaattctg | 720 |
| gatttgacat | tctcatttag | agagacctat | tccttttttc | gttttctatt | ttagtgtttc | 780 |
| atztatgtgc | ggtctccaat | ttaggacttt | tccatagtgc | caaagccata | catattcagt | 840 |
| agaacatcaa | taaaaaaaaa | aaa        |            |            |            | 863 |

<210> 541  
 <211> 1962  
 <212> DNA  
 <213> homo sapiens

<400> 541

|             |              |             |             |            |            |      |
|-------------|--------------|-------------|-------------|------------|------------|------|
| accgacggcc  | gcccccttttc  | gtctttttttt | tttttacatt  | tcaaatatat | tttattactt | 60   |
| tccatcttag  | aaagaatatg   | aaacctgcat  | gcaatgctaa  | tggtttctga | catgtacata | 120  |
| gcatataaca  | cagcagtaca   | atgcggcata  | tactgggggg  | cagtgtgtgg | agggggcggt | 180  |
| cttaagggtg  | tatgtacaga   | ggaaaaggcg  | catggtcatc  | ttagctttcg | aaagaggact | 240  |
| gcactgttta  | acattgaaga   | attacatggg  | gaatcacaaa  | tatattgctt | tagtactgca | 300  |
| tgttctgttg  | tgggtgaggga  | aagaaacatg  | ctttgaagggt | tttcccttgt | caacagaatg | 360  |
| tgtgtctgta  | gctgtgtatt   | gcgcattgtat | tcatatattt  | ttaagttttc | tcctaagggt | 420  |
| tttgttgaca  | gtgttgggaa   | cctcacatgc  | ttctgaagca  | ttaaatattg | aacctgtgaa | 480  |
| cctttcagaa  | atcctcaggt   | tgggaaagac  | cccacacctt  | ctttaaggat | catttgtctc | 540  |
| gccattcacag | gatcttggaa   | atgtttccta  | gggtgtgtaa  | aaattaacca | ggggggaatg | 600  |
| aagcacattt  | ttctggcaac   | caaaacttgag | ttcctcagag  | aacagatgca | gagagacctg | 660  |
| ctcctgcttg  | cccggctaca   | ggggccactg  | tggagtccca  | ctgaggctgt | gaccggccat | 720  |
| aagcccagga  | gagcccggtg   | cagctgtgcc  | gaggcgccag  | gacctctaag | cggaagcttc | 780  |
| ccaagctagg  | aatggagcaa   | cactgcaatg  | aaatgtgtcc  | accaagctca | ttgttctctc | 840  |
| cgggcgctta  | taaagctcag   | atgtatagtg  | acgtatggac  | aaatacaaaa | aaaaaaaaaa | 900  |
| aaaaaaaaaa  | aaaaaaaaagcc | tttctttctc  | acaggcataa  | gacacaaatt | atatattggt | 960  |
| atgaagcact  | ttttaccaac   | ggtcagtttt  | tacattttat  | agctgcgtgc | gaaaggcttc | 1020 |
| catatgggag  | acccatctct   | cttgtgtctc  | agacttcctc  | acaggctgct | ttttatcaaa | 1080 |
| aaggggaaaa  | ctcatgcctt   | tcctttttta  | aaaatgcttt  | tttgtatttg | tccatacgtc | 1140 |
| actatacatc  | tgagctttat   | aagcgcccg   | gaggaaacaat | gagcttgggt | gacacatttc | 1200 |
| attgcagtgt  | tgctccatcc   | ctagcttggg  | aagcttccgc  | ttagagggtc | tggcgccctc | 1260 |
| gcacagctgc  | cacgggctct   | cctgggctta  | tggccgggtca | cagcctcagt | gtgactccac | 1320 |

002227" 56E 4960



|             |             |             |             |             |             |      |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| ggaaaccctg  | gatcatgaca  | gtgtggtaga  | aatgattaga  | aaggggtggag | atcagacttc  | 300  |
| actgtttggtg | gtagacaaaag | agacggacaa  | catgtacaga  | ctggctcatt  | tttctccatt  | 360  |
| tctctactat  | caaagtcaag  | aactgccccaa | tggctctgtc  | aaggaggctc  | cagctcctac  | 420  |
| tcccacttct  | ctggaagtct  | caagtcacc   | agatactaca  | gaggaagtag  | atcataagcc  | 480  |
| taaactctgc  | aggctggcta  | aaggtagaaa  | tggctatggc  | tttcaacttaa | atgctgattcg | 540  |
| gggtctgcca  | ggctcattca  | tcaaagaggt  | acagaagggc  | ggctcctgctg | acttggctg   | 600  |
| gctagaggat  | gaggatgtca  | tcattgaagt  | gaatgggggtg | aatgtgctag  | atgaacccta  | 660  |
| tgagaagggtg | gtggatagaa  | tccagagcag  | tgggaagaat  | gtcacacttc  | tagtctgtgg  | 720  |
| aaagaaggcc  | tatgattatt  | tccaagctaa  | gaaaatccct  | attgttccct  | ccctggctga  | 780  |
| tgccagttga  | cagccctgca  | ggttctaaag  | aaggaatagt  | ggtggagtca  | aaccatgact  | 840  |
| cgcacatggc  | aaaagaacgg  | gctggctattg | cagacggcta  | atztatgctt  | aacttaggaa  | 900  |
| gagataagggt | tccttgagca  | ccaaagatga  | ttcataactc  | tgtatagggtg | acagctgctt  | 960  |
| ataaaaagcat | cttagcagat  | aagcctatta  | aaattgtgct  | tttgtaaca   |             | 1009 |

<210> 544

<211> 2834

<212> DNA

<213> homo sapiens

<400> 544

|             |             |             |             |            |             |      |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| cacttttgccg | gcggcacttt  | ttccaggttg  | ttaatccagc  | taatggagaa | ggatagatgc  | 60   |
| acgctacttg  | gtttagaaaa  | aaaaacaaaa  | atgagcaaac  | gagacgcccc | ttccgtttta  | 120  |
| tgataactaa  | gctgcaggga  | aataaatcgg  | ctggccctac  | tgcaatctac | tgcactcgag  | 180  |
| aaacatcaca  | gaaaattcct  | tgatttatct  | taatagtgc   | aagtgagcct | gcttctgtca  | 240  |
| attactgaag  | ctataaggag  | atttttttaa  | aattaaactt  | caacacaatg | aggtgttgcc  | 300  |
| acatctgcaa  | acttcctggg  | agagtaattg  | ggattcgagt  | gcttcgatta | tctttggtgg  | 360  |
| tcatacctgt  | attattactg  | gtagctgggtg | ctttgactgc  | cttacttccc | agtgttaaag  | 420  |
| aagacaagat  | gctcatgttg  | cgtagggaaa  | taaaatccca  | gggcaagtcc | accatggact  | 480  |
| cctttactct  | cataatgcag  | acgtacaaca  | gaacagatct  | cttattgaaa | cttttaaatc  | 540  |
| attatcaggc  | tgtaccaa    | ctgcacaaag  | tgattgtggt  | atggaacaat | attggagaga  | 600  |
| aggcaccaga  | tgagttatgg  | aattctctag  | ggccccaccc  | tatccctgtg | atcttcaaac  | 660  |
| aacagacagc  | aaacaggatg  | agaaatcgac  | tccaggtcct  | tccgaactgt | gaaaccaatg  | 720  |
| cagtggttgat | ggtagatgat  | gacacactca  | tcagcacccc  | agacctgtgt | tttgctttct  | 780  |
| cagtttggca  | gcaatttctt  | gatcaaattg  | taggatttgt  | tcctagaaag | cacgtctcta  | 840  |
| cttcacagg   | tatctacagt  | tatggaagtt  | ttgaaatgca  | agcaccaggg | tctggaaatg  | 900  |
| gtgaccagta  | ctctatgggtg | ctgattggag  | cctcattctt  | caatagcaaa | tatcttgaat  | 960  |
| tatttcagag  | gcaacctgca  | gctgtccatg  | ctttgataga  | tgatactcaa | aactgtgatg  | 1020 |
| atattgccat  | gaattttatc  | attgccaaag  | atattggcaa  | gacttcaggg | atatttgtga  | 1080 |
| agcctgtaaa  | catggacaat  | ttggaaaaag  | aaaccaacag  | tggctattct | ggaatgtggc  | 1140 |
| atcgagctga  | gcacgctctg  | cagaggtcct  | attgtataaa  | taagcttggt | aatatctatg  | 1200 |
| atagcatgcc  | cttaagatac  | tccaacatta  | tgttttccca  | gtttgggttt | ccatattgcc  | 1260 |
| actacaaaag  | aaaaatataa  | aagtaaaaaca | aacaaaaaca  | aacctgaaaa | ctgcttgcca  | 1320 |
| tttgagtagc  | ttctccatgc  | tatgtatttt  | tttaagcaac  | atcatgaatt | ttatctactc  | 1380 |
| cagaagtctc  | tacaatagaa  | aaaaaagtgc  | agtgtctcta  | ggatataaaa | ttcacattac  | 1440 |
| ttttgaaagc  | caagaagttg  | gtcttatcca  | gttaggtcct  | cttatgaaga | gttttcatcc  | 1500 |
| agggatataa  | ctccttggtc  | agtgatttta  | ttgtttacat  | cctgagactg | ttctacagtt  | 1560 |
| tctttgactc  | ctggcatttg  | ccttaaggac  | ctatagcaag  | ctgtttctag | gatcagaaac  | 1620 |
| tcaagagagg  | catttctctg  | ctttttcact  | aaaggtcagt  | tgttttaatt | tgaaacctga  | 1680 |
| aatgcctctt  | tagcaaaaagc | ctgtggtagt  | gggtaaagcc  | atgtaagaag | agaatagtct  | 1740 |
| cagtcacata  | tgaagaggaa  | aatttgcagc  | tgccagtgtc  | ttccttgtgg | ccctgccaac  | 1800 |
| cagctctctcc | aggcagaact  | cagttcttgat | tggttttgat  | gtaaccatcc | atgcttttat  | 1860 |
| ttttgttaag  | ttcttttgta  | ctgggacagt  | taattttagt  | agctgaagaa | cgtctagtgt  | 1920 |
| tttgcttgat  | atttgtgaac  | atttactgca  | tggatcacia  | aacaatatac | cctgtatttt  | 1980 |
| ttacacgcca  | cttatatgca  | gcaaggagta  | aatgtgttac  | tagattcggg | tagtgcattt  | 2040 |
| tgctactgaa  | tctgaccttg  | agaatgtaca  | tttaattctta | tattttacat | aatgtatgtg  | 2100 |
| ttgtttaaga  | aatgtataaa  | aaacctgaaa  | aaaatgagta  | agaactggca | gaagttaaaa  | 2160 |
| ccctttgtat  | caaaagatct  | ttattggtag  | agcactgggt  | atcttctgga | tactaaaaag  | 2220 |
| ttgtattaca  | aagccaaaaca | cttgcattca  | caactttaaa  | aaaagatcca | aggaactatt  | 2280 |
| cataatgatg  | aaattccaac  | tacatacaag  | gaggagaaaa  | taagaaccca | gtcataacag  | 2340 |
| aggaattcta  | taggagtctg  | catcaattca  | ttcttaaggt  | tgccactctc | ctggttatgtg | 2400 |
| aattagcgctc | tgtgtttcac  | ccattgtctg  | tgtttagtc   | ttgttcacca | ctaaggcca   | 2460 |
| gaattcttaa  | ctaggcctct  | gtttaccaac  | ttctctttct  | cctcctttcc | ctcttattcc  | 2520 |

09673395.122700





|             |             |            |             |            |             |      |
|-------------|-------------|------------|-------------|------------|-------------|------|
| tgcaactgtg  | cacccagctt  | gccagatttt | tccccattac  | acccccagtg | tggcatatcc  | 60   |
| ttgggtcccca | gaggcacacc  | ccttgatctg | tggacctcca  | ggcctggaca | agaggctgct  | 120  |
| accagaaacc  | ccaggccctt  | gttactcaaa | ttcacagcca  | gtgtggtgtg | gcctgactcc  | 180  |
| tcgccagccc  | ctggaaccac  | atccacctgg | ggagggggcc  | tctgaatgga | gttctgacac  | 240  |
| cgcagagggc  | aggccatgcc  | cttatccgca | ctgccagggtg | ctgtcggccc | agcctggctc  | 300  |
| agaggaggaa  | ctcgaggagc  | tgtgtgaaca | ggctgtgtga  | gatgttcagg | cctagctcca  | 360  |
| accaagagtg  | tgctccagat  | gtgttggggc | cctaacttgg  | cacagagtcc | tgctcctggg  | 420  |
| aaaggaaagg  | accacagcaa  | acaccattct | ttttgccgta  | cttcttagaa | gcactggaag  | 480  |
| aggactgggtg | atgggtgggag | ggtgagaggg | tgccgttttc  | ctgctccagc | tccagacctt  | 540  |
| gtctgcagaa  | aacatctgca  | gtgcagcaaa | tccatgtcca  | gccaggcaac | cagctgctgc  | 600  |
| ctgtggcggtg | tgtgggctgg  | atcccttgaa | ggctgagttt  | ttgagggcag | aaagctagct  | 660  |
| atgggtagcc  | aggtgttaca  | aaggtgctgc | tccttctcca  | acccctactt | ggtttccctc  | 720  |
| accccaagcc  | tcagtgttcat | accagccagt | gggttcagca  | gaacgcata  | caccttatca  | 780  |
| cctccctcct  | tgggtgagct  | ctgaacacca | gctttggccc  | ctccacagta | aggctgctac  | 840  |
| attcagggggc | aaccctgggc  | tctatcattt | tccttttttg  | ccaaaaggac | cagtagcata  | 900  |
| ggtgagccct  | gagcactaaa  | aggaggggtc | cctgaagctt  | tcccactata | gtgtggagtt  | 960  |
| ctgtccctga  | ggtgggtaca  | gcagccttgg | ttcctctggg  | ggttgagaat | agaatagtgt  | 1020 |
| gggaggggaaa | aactcctcct  | tgaagatttc | ctgtctcaga  | gtccagaga  | ggtagaaagg  | 1080 |
| aggaattttct | gctggacttc  | atctgggcag | aggaaggatg  | gaatgaagg  | agaaaaggca  | 1140 |
| gaattacagc  | tgagcgggga  | caacaaagag | ttcttctctg  | ggaaaagttt | tgtcttagag  | 1200 |
| caaggatgga  | aaatggggac  | aacaaaggaa | aagcaaagt   | tgaccttgg  | gtttggacag  | 1260 |
| ccagagggcc  | cagctcccca  | gtataagcca | tacagccag   | ggacccacag | gagagtggat  | 1320 |
| tagagcacaa  | gtctggcctc  | actgagtggg | caagagctga  | tgggcctcat | cagggtgaca  | 1380 |
| ttcaccccag  | gagcagcctg  | ccactcttgg | ccctcaggc   | attatcccat | ttggaatgtg  | 1440 |
| aatgtggtgg  | caaagtgggc  | agaggacccc | acctgggaac  | ctttttccct | cagttagtgg  | 1500 |
| ggagactagc  | acctaggtac  | ccacatgggt | atttatatct  | gaaccagaca | gacgcttgaa  | 1560 |
| tcaggcacta  | tgtaaagaaa  | tatatattat | tgctaataata | tttatccaca | aatgtggtct  | 1620 |
| ggtcttgtgg  | ttttgttctg  | tcgtgactgt | cactcagggt  | aacaacgtca | tctctttcta  | 1680 |
| catcaagaga  | agtaaattat  | ttatgttatc | agaggctagg  | ctccgattca | tgaaaggata  | 1740 |
| gggtagagta  | gagggcttgg  | caataagaac | tggtttgtaa  | gcccctaaaa | gtgtggctta  | 1800 |
| gtgagatcag  | ggaaggagaa  | agcatgactg | gattcttact  | gtgcttcagt | cattattatt  | 1860 |
| atactgttca  | cttcacacat  | tatcatactt | cagtgactca  | gaccttgggc | aaatactctg  | 1920 |
| tgccctcgctt | tttcagtcca  | taaaatgggc | ctacttaata  | gttggtgcag | gacttacatg  | 1980 |
| agataataga  | gtgtagaaaa  | tatgttccaa | agtggaaagt  | tttattcagt | gatagaaaac  | 2040 |
| atccaaacct  | gtcacagagc  | ccatctgaac | acagcatggg  | accgccaaca | agaagaaagc  | 2100 |
| ccgcccggaa  | gcagctcaat  | caggaggctg | ggctggaatg  | acagcgcagc | ggggcctgaa  | 2160 |
| actattttata | tcccaaagct  | cctctcagat | aaacacaaat  | gactgcgttc | tgccctgcact | 2220 |
| cgggctattg  | cgaggacaga  | gagctgggtg | tccattggcg  | tgaagtctcc | agggccagaa  | 2280 |
| ggggcctttg  | tcgcttcctc  | acaaggcaca | agttccctct  | ctgcttcccc | gagaaagggt  | 2340 |
| tggtaggggt  | ggtggtttag  | tgccatagaa | acaaggcatt  | tcgcttccta | gacggtgaaa  | 2400 |
| tgaaaggggaa | aaaaaggaca  | cctaactctc | tacaaatggt  | ctttagtaaa | ggaacc      | 2456 |

<210> 547  
 <211> 2218  
 <212> DNA  
 <213> homo sapiens

<400> 547

|            |            |            |            |            |            |     |
|------------|------------|------------|------------|------------|------------|-----|
| gaggaaaaag | aacaatgaac | agcaacgata | ttgactgtgc | aactcagaca | ttcctgcaga | 60  |
| aaagacatat | gttgctttac | aagaaggcca | agaactatg  | gggccttccc | agcatttgac | 120 |
| tgttcattgc | atagaatgaa | ttaaataatc | agttacttga | atgggtataa | cgcataaatg | 180 |
| tgtgatttta | ttaggggcat | ctgccaattc | tctcactgtg | gttcttcttc | tgactttgcc | 240 |
| tgttcatcat | ctaaggaggc | tagatccttc | gctgacttca | ccattcctca | aacctgtaag | 300 |
| tttctcactt | cttccaaatt | ggctttggct | ctttcttcaa | cctttccatt | caagagcaat | 360 |
| ctttgctaag | gagtaagtga | atgtgaagag | taccaactac | aacaattcta | cagataatta | 420 |
| gtggatttgt | ttgtttgttg | agagtgaagg | tttcttggca | tctggtgcct | gattaaggct | 480 |
| tgagtattaa | gttctcagca | tatctctcta | ttgtcttgac | ttgagtttgc | tgcattttct | 540 |
| atgtgctgtt | cgtgacttgg | agaacttaaa | gtaatcgagc | tatgccaaat | tgggggtgga | 600 |
| acagagtact | tcccaccaca | gtgttgaaag | ggagagcaaa | gtcttatgga | taaacctctc | 660 |
| tttcttttgg | ggacacatgg | ctctcacttg | agaagctcac | ctgtgctgaa | tgtccacatg | 720 |
| gtcactaaac | atgttatcct | taaaccccc  | gtatgcctga | ggtgaaaggg | ctctctctta | 780 |



```

ttaggttttc atgggaacat gaggcagcaa atctattgct aagactttac caggctcaaa 840
tcatctgagg ctgatagata tttgacttgg taagacttaa gtaaggctct ggctcccagg 900
ggcataagca acagtttctt gaatgtgcca tctgagaagg gagaccagg ttatgagttt 960
tcctttgaac acattgggtct tttctcaaag ttcttgccct gctagactgt tagctctttg1020
aggacagggg ctatgtctta tcaatcacta ttattttcct gttacctaagc atgggacaag1080
tacacaacac atatttgtgt agtcttctaa aagactcctc tgattgggag accatatcta1140
taattgggat gtgaatcatt tcttcagtgg aataagagca caacggcaca accttcaagg1200
acatattatc tactatgaac attttactgt gagactcttt attttgccct ctacttgcgc1260
tgaaatgaaa ccaaaacagg ccgttgggtt ccacaagtca atatatgttg gatgaggatt1320
ctgttgccct attgggaact gtgagactta tctggatga gaagccagta ataaaccttt1380
gacctgtttt aaccaatgaa gattatgaat atgttaatat gatgtaaatt gctattttaag1440
tgtaaagcag ttctaagttt tagtatttgg gggattgggt tttattattt ttttcctttt1500
tgaaaaatac tgagggatct tttgataaag ttagtaatgc atgttagatt ttagttttgc1560
aagcatgttg tttttcaaat atatcaagta tagaaaaagg taaaacagtt aagaaggaag1620
gcaattatat tattcttctg tagttaagca aacacttggt gagtgcctgc tatgtgcacg1680
gcatgggccc atatgtgtga ggagcttgct taattatgta ggaagcaata gatctcggtal1740
gttacgtatt gggcagatac ttactgtatg aatgaaagaa catcacagta atcacaatat1800
cagagctgag ttatccccag ttagcttctg ttggggattc cagtttcttg gaacgagagt1860
tagggccatt ttatttataa gaaactcccg gttgagaccg gttcttatga acctctgaaa1920
cgtacaagcc ttcacaagtt taactaaatt gggattaatc tttctgtagt tatctgcata1980
attcttggtt ttctttccat ctggctcctg ggttgacaat ttgtggaaac aactctattg2040
ctactattta aaaaaaatca gaaatctttc cttttaagct atgttaaatt caaactattc2100
ctgctattcc tgttttgtca aagaattata tttttcaaaa tatgtttatt tgtttgatgg2160
gtcccaggaa acactaataa aaaccacaga gaccagcccc aaaaaaaaaa aagttttg 2218

```

<210> 548  
 <211> 2196  
 <212> DNA  
 <213> homo sapiens

<400> 548

```

cggcgcgatg cgcggagacc cccgcggggg cggcggcggc cgtgagcccc gatgaggccc 60
gagcgtcccc ggccgcgcgg cagcgccccc ggcccgatgg agaccccgcc gtgggaccca 120
gcccgcacag actcgtgcc gcccacgctg accccggccg tgcccccta cgtgaagctt 180
ggcctcaccg tcgtctacac cgtgttctac gcgctgctct tcgtgttcat ctacgtgcag 240
ctctggctgg tgcctgcgta ccgccacaag cggctcagct accagagcgt cttoctcttt 300
ctctgcctct tctgggcctc cctgcggacc gtctctctct ccttctactt caaagacttc 360
gtggcggcca attcgtcag ccccttcgtc ttctggctgc tctactgctt ccctgtgtgc 420
ctgcagtttt tcacctcac gctgatgaac ttgtacttca cgcaggtgat tttcaaagcc 480
aagtcacaaat attctccaga attactcaaa taecgggtgc cctctacctt ggccctccctc 540
ttcatcagcc ttgttttctt gttggtgaat ttaacctgtg ctgtgctggt aaagacggga 600
aattgggaga ggaagggttat cgtctctgtg cgagtggcca ttaatgacac gctcttcgtg 660
ctgtgtgcgg tctctctctc catctgtctc tacaaaatct ctaagatgtc cttagccaac 720
atthacttgg agtccaaggg ctctccctg tgtcaagtga ctgccatcgg tgtcacctg 780
atactgcttt acacctctcg ggctgctac aacctgttca tctgtcatt ttctcagaac 840
aagagcgtcc attcctttga ttatgactgg tacaatgtat cagaccaggc agatttgaag 900
aatcagctgg gagatgctgg atacgtatta tttggagtgg tgttatttgt ttgggaactc 960
ttacctacca ccttagtcgt ttatttcttc cgagttagaa atcctacaaa ggaccttacc1020
aaccttgaaa tggccccag ccattggattc agtcccagat cttatttctt tgacaacctt1080
cgaagatatg acagctgata tgaccttgcc tggaacattg cccctcaggg acttcagggal1140
ggttttgtct cagattacta tgattgggga caacaaacta acagcttctt ggcacaagca1200
ggaactttgc aaagactcaa ctttggatcc tgacaaacca agccttgggt agcatcagtt1260
aacagtttta tggacgattc ctccagatgaa aagcttcaga aaagcatagt gacagctgaa1320
tttttagggc acttttccct aagaaataga acttgatttt tatttgttac aggtttccaa1380
tgccccata ggaataagca ataattgtaga ctgataaacc cttatttttag tactaaagag1440
ggagccttgc tatttcagtg ggtataaatt aaacttttta aagaaaatct gtacttttat1500
aaagatgtat tttgtataac ttaaataata atgctaaagt atactagggt ttttttttct1560
tgagaatggt actgcaatc tgtttagatt tgcacagact tttatgcata attcacttta1620
aaaaatataga atatatgtc taatagtttt ttaacgcttt tggactaaag tattccacaal1680
atcttacctc ttttaggtcac tgatgggtcac tccagattctg agtgccacat tggtagactc1740
ctaaaatata gttgacaact tagccaattg caactccagt gttgataatt aaaatgaaat1800

```

|            |            |             |             |             |                 |
|------------|------------|-------------|-------------|-------------|-----------------|
| ggtaaagcag | cagactgtaa | ggtctttaga  | gatttttttt  | ttaaaggttca | ggccgtaggt1860  |
| tcctcaagga | atctcttaag | ttttgcccac  | agactgggtac | ttccttttcag | tagggcgcta1920  |
| atgtatacac | attaatgata | agttgataac  | attaaaaaatg | tagctgactt  | atcctattaa1980  |
| acctcctctg | ctatgttcac | agaacccccca | taactttttt  | tcagcctaata | gaaatctaata2040 |
| atgcattacc | tcagggccac | atcaagaata  | cacctctttc  | cgaactcact  | gaatgttcat2100  |
| tacattcaag | gagaaaataa | gaggggtccat | aaagggcatt  | aataacaaat  | accccaagcc2160  |
| gttgagctaa | gactatgtgg | aatcctaata  | gttttt      |             | 2196            |

<210> 549  
 <211> 701  
 <212> DNA  
 <213> homo sapiens

<400> 549

|             |             |             |             |            |                |
|-------------|-------------|-------------|-------------|------------|----------------|
| aattaaaata  | aatagaaaca  | tacggagatt  | cttttatgtt  | ggatttatta | tacctccac 60   |
| catttttggtc | cctgaaaagg  | gaaaagatac  | acggctcgagt | agtacaggta | tgtgtttccc120  |
| actacacatt  | atggctataa  | tggagttgaa  | ttgcaaacag  | taaaattttg | ttttggattg180  |
| gtttccccctg | atccccccag  | acaggagctt  | cctctccac   | cctacctgcc | tgcccttaag240  |
| ttgtgtccta  | ttaaactgga  | cacaaatctc  | accggctttt  | agtctaataa | ttgaatcata300  |
| gctacacaca  | gtgacaccag  | aatagctact  | tgttttttta  | tgttaccagt | gagtaacttg360  |
| ttatcctctg  | tatgtagaaa  | ctaattttcac | catgatcaca  | gatctgtgta | acatctctag420  |
| tttgaatttc  | cacacaattt  | taaaatgtct  | actagaaaac  | ttacaccttt | ttgttccaag480  |
| gtgctcttca  | tctataaaaac | cgtgggcata  | cttcagtgtt  | cttctgaggc | caaattttgt540  |
| gggtcgtggg  | ggacaatttt  | gtattaacat  | acgttatttt  | gtaattcatt | ctccaaattt600  |
| gaagctttat  | taaaggtatt  | ctatttccac  | tggcttcct   | taacttgaat | aaaattttact660 |
| cccagtgcgc  | tggctcatgc  | ctgctgcaat  | cccagccctt  | t          | 701            |

<210> 550  
 <211> 2214  
 <212> DNA  
 <213> homo sapiens

<400> 550

|             |             |             |             |            |                 |
|-------------|-------------|-------------|-------------|------------|-----------------|
| gctaaagagg  | aggatgctat  | actttttctaa | atggcaagag  | atggggagag | aaggggatta 60   |
| agagttgacc  | cgcaacctcc  | cggtggattc  | tttgttctta  | ccagatctct | tggccactcc 120  |
| cctattctga  | agtcgtcttg  | gctctcttga  | ctgctcccc   | attctgaagt | cgtcttggt 180   |
| ctcttgacta  | ctccccctatt | ctgaagtcgt  | cttggctctc  | ctgactacac | tatttcaagg 240  |
| aatgatcacc  | aagacacaca  | aagtagacct  | tgggtctcca  | gagaagaaaa | agaagaagaa 300  |
| agtggtcaaa  | gaaccagaga  | ctcgatactc  | agtttttaaac | aatgatgatt | actttgctga 360  |
| tgttttctct  | ttaagagcta  | catccccctc  | ntaagagtgt  | ggcccatggg | caggcacctg 420  |
| agatgcctct  | agtgaagaaa  | aagaagaaga  | aaaagaaggg  | tgtcagcacc | ctttgcgagg 480  |
| agcatgtaga  | acctgagacc  | acgctgcctg  | ctagacggac  | agagaagtca | cccagcctca 540  |
| ggaagcaggt  | gtttggccac  | ttggagttcc  | tcagtgggga  | aaagaaaaan | taagaagtca 600  |
| cctctagcca  | tgtcccatgc  | ctctgggggtg | aaaacctccc  | cagnaccnt  | agacaggggtg 660 |
| aggaggaaaac | cagagttggc  | aagaagctca  | aaaaancaca  | agaaggaaaa | aaagggggnc 720  |
| ccaggacccc  | acnagccttc  | tcggtccagg  | acccttggtt  | ctgtgaggcc | agggaggcca 780  |
| gggatgttgg  | ggacacttg   | tncagtgggg  | aagaaggatg  | aggaacaggc | agccttgggg 840  |
| ncagaaacgg  | aagncgggaag | agccccagag  | aacacaatgg  | gaaggtgaag | aagaaaaaaa 900  |
| aaatccacca  | ggagggagat  | gccctcccag  | gccactccaa  | gccctccagg | tccatggaga 960  |
| gcagccctag  | gaaaggaagt  | aaaaagaagc  | cagtcaaagt  | tgaggctccg | gaatacatcc1020  |
| ccataagtga  | tgaccctaag  | tctccgcaa   | agaaaaagat  | gaagtccaaa | aagaaggtag1080  |
| agcagccagt  | catcgaggag  | ccagctctga  | aaaggaagac  | gaggaagaag | aggaaagaga1140  |
| gtggggtagc  | aggagaccct  | tggagggagg  | aaacagacac  | ggacttagag | gtggtgttgg1200  |
| aaaaaaaaagg | caacatggat  | gaggcgcaca  | tagaccaggt  | gaggcgaaag | gccttgcaag1260  |
| aagagatcga  | tcgcgagtca  | ggcaaaacgg  | aagctttctga | aaccaggaag | tggacgggaa1320  |
| cccagtttgg  | ccagtgggtg  | actgctgggt  | ttgagaacga  | ggaccaaaaa | ctgaaattttc1380 |
| tcagacttat  | gggtggcttc  | aaaaacctgt  | ccccttcgtt  | cagccgcccc | gccagcacga1440  |
| ttgcaaggcc  | caacatggcc  | ctcggcaaga  | aggcggctga  | cagcctgcag | cagaatctgc1500  |
| agcgggacta  | cgaccggggc  | atgagcttgg  | aagtacagcc  | ggggagccgg | cttgcggtgt1560  |

|            |            |             |            |            |                 |
|------------|------------|-------------|------------|------------|-----------------|
| tctccaccgc | ccccaacaag | atctttttaca | ttgacaggaa | cgcttccaag | tcagtcaagc1620  |
| tggaagatta | aactctagag | ttttgtcccc  | ccaaaactgc | cacaattgct | ttgattattc1680  |
| catttatgct | ggagattaca | aattttttttt | ggtgaacaaa | tcagatcttg | gtgaggacct1740  |
| cgagcagtaa | gatataaata | actcccnata  | agcttagncg | ttcccagtaa | tggaacacta1800  |
| ggcataaant | ggtttattnc | agttgtgcaa  | atgaaagcca | tctgacagtt | ggctncacat1860  |
| tgaacacctg | tggagattaa | ggacgaggac  | aactatattg | atgggcttgg | atgaactggg1920  |
| gcagggcagc | tcatatttcg | ggagccagga  | gaacgagtga | gtgctaaaac | ctcctgtttt1980  |
| ctgtgttaaa | cattccgtcc | ctgttttgaga | catcagtatg | tacagttaac | ttttgttgag2040  |
| tgtttagcag | gtactagggg | catactagtg  | ttttccttaa | tgtatttaac | cttcataaatt2100 |
| atgaaatggg | tgctattatt | agccccatct  | tatagatgag | gcaactgagg | ttcagggata2160  |
| aagtaataaa | attgcctggg | gtcaccacgc  | cactaaaaaa | aaaaaaaaaa | aaaa 2214       |

<210> 551

<211> 1434

<212> DNA

<213> homo sapiens

<400> 551

|             |             |            |            |            |             |      |
|-------------|-------------|------------|------------|------------|-------------|------|
| gcgcggccgg  | cgcttgccgg  | gcgagagggt | cggggcgaag | gggaagctac | gtccccggagg | 60   |
| tgcggtgtgg  | ggcaccgggc  | ggggccgcgg | gaaccggcgc | cccacggagc | tgctgctgtc  | 120  |
| agaccaaccc  | cgggccccca  | tcactactgc | gccgcgcttt | caggcgccga | gaactaccgt  | 180  |
| tcccggcatg  | ccatgaaatt  | ggcctcgccg | ctgaggcggg | gtccggccct | ccaccgcctc  | 240  |
| ccgcgcgcg   | cgaatcgccg  | tcgcgagcca | tggaggagga | ggcatcgctc | ccggggctgg  | 300  |
| gctgcagcaa  | gccgcacctg  | gagaagctga | ccctgggcat | cacgcgcctc | ctagaatctt  | 360  |
| ccccagggtg  | gactgagggt  | accatcatag | aaaagcctcc | tgctgaacgt | catatgattt  | 420  |
| cttcctggga  | acaaaagaat  | aactgtgtga | tgctgaaga  | tgtgaagaac | ttttacctga  | 480  |
| tgaccaatgg  | cttcacacatg | acatggagtg | tgaagctgga | tgagcacatc | attccactgg  | 540  |
| gaagcatggc  | aattaacagc  | atctcaaaac | tgactcagct | caccagctct | tccatgtatt  | 600  |
| cacttccctaa | tgcacccact  | ctggcagacc | tggaggacga | tacacatgaa | gccagtgatg  | 660  |
| atcagccaga  | gaagcctcac  | tttgactctc | gcagtgtgat | atttgagctg | gattcatgca  | 720  |
| atggcagtg   | gaaagtgttc  | cttgtctaca | aaagtgggaa | accagcatta | gcagaagaca  | 780  |
| ctgagatctg  | gttcctggac  | agagcgttat | actggcattt | tctcacagac | acctttactg  | 840  |
| cctattaccg  | cctgctcctc  | acccacctgg | gcctgcccc  | gtggcaatat | gccttcacca  | 900  |
| gctatggcat  | tagccacacg  | gccaagcaat | ggttcagcat | gtataaacct | atcacctaca  | 960  |
| acacaaacct  | gctcacagaa  | gagaccgact | cctttgtgaa | taagctagat | cccagcaaag  | 1020 |
| tgtttaagag  | caagaacaag  | atcgtaatcc | caaaaaagaa | agggcctgtg | cagcctgcag  | 1080 |
| gtggccagaa  | agggccctca  | ggaccctccg | gtccctccac | ttcctccact | tctaaatcct  | 1140 |
| cctctggctc  | tggaaacccc  | acccggaagt | gagcacccct | ccctccaact | ccctaccagc  | 1200 |
| tccagagtgg  | tggtttccat  | gcacagatgg | ccctaggggt | gacctccagt | tttgctgtgt  | 1260 |
| gaccgtaggc  | ctctttctag  | ttgaatgacc | aaattgttaa | ggcttttagt | cccaccgacal | 1320 |
| ttagccaggc  | tcgtagttag  | gcctccagag | cagggtgtgc | tgtccctctg | ctctggaagc  | 1380 |
| aatgggggaat | gtggaatcaa  | gacaatgccc | aaaaaatttt | taatgcagct | ggctc       | 1434 |

<210> 552

<211> 2434

<212> DNA

<213> homo sapiens

<400> 552

|            |             |            |            |             |            |     |
|------------|-------------|------------|------------|-------------|------------|-----|
| cccggagaag | gtggaggagg  | acgagaagcc | gccgagagcc | gactaccctc  | cgggcccagc | 60  |
| ctgtctgtcc | gtgggtggatc | taagcctcat | ctgtatcctc | ttgtgatggc  | gtgaaggaaa | 120 |
| gccatggcag | atttccagcc  | tggtgatgct | gtacagaaca | cagggtggcct | gcttccatgc | 180 |
| ctcctcagct | tcaagaaact  | agaatgaacc | gaagcattcc | tgtggagggt  | gatgaatcag | 240 |
| aaccataccc | aagtcaagttg | ctgaaaccaa | tcccagaata | ttccccggaa  | gaggaatcag | 300 |
| aaccacctgc | tccaaatata  | aggaacatgg | cacccaacag | cttgtctgca  | cccacaatgc | 360 |
| ttcacaattc | ctccggagac  | ttttctcaag | ctcactcaac | cctgaaactt  | gcaaatcacc | 420 |
| agcggcctgt | atcccggcag  | gtcacctgcc | tgccgactca | agttctggag  | gacagtgaag | 480 |
| acagtttctg | caggagacac  | ccaggcctgg | gcaaaagctt | cccttctggg  | tgctctgcag | 540 |
| tcagcgagcc | tgcgtctgag  | tctgtgggtg | gagccctccc | tgacagagcat | cagttttcat | 600 |

```

ttatggaaaa acgtaatcaa tggctggtat ctcagctttc agcggcttct cctgacactg 660
gccatgactc agacaaatca gaccaaagtt tacctaattgc ctcagcagac tccttgggcg 720
gtagccagga gatggtgcaa cggccccagc ctncacagga accgagcagg cctggatctg 780
ccaaccatag acacgggata tgattcccag ccccgagatg tcctgggcat caggcagctg 840
gaaaggcccc tgnccctcac ctccgtgtgt taccocagg acctcccag acctctcagg 900
tccagggagt tccctcagtt tgaacctcag aggtatccag catgtgcaca gatgctgcct 960
cccaatcttt ccccatatgc tccatggaac tatcattacc attgtcctgg aagtcccgat1020
caccaggtgc ncatatggcc atgactaccc tcgagcagcc taccagcaag tgatccagcc1080
ggctctgcct gggncagccc ctnggcctgg agccagtgtg agaggcctgc accctgtgca1140
gaannngtta tcctgaatta tcccagcccc tgggaccaag aagagaggcc cgcacagaga1200
gactgctcct ttccggggct tccaaggcac caggaccagc cacatcacca gccaccta1260
agagctgggtg ctectgggga gtccttggag tgccctgcag agctgagacc acaggttccc1320
cagctccgt cccagctgc tgtgcctaga ccccttagca accctccagc cagaggaact1380
ctaaaaacaa gcaatttgcc agaagaattg cggaaagtct ttatcactta ttcgatggac1440
acagctatgg aggtggtgaa attcgtgaac tttttgttgg taaatggctt ccaaactgca1500
attgancant atttgaggat agaatccgag gcattgatat cattnaaatg gatggagcgc1560
taccttangg gataagaccg tgatgataat cgtagcaatc agccccnaaa ntacaaannc1620
aggacgtngg naaggncgct gangtcngca gctggacgag gatgagcatg gcttacatac1680
taagtacatt catcgaatga tgcagattga gttcataaaa caaggaagca tgaattttcag1740
attcatccct gtgctcttcc caaatgctaa gaaggagcat gtgcccacct ggcttcagaa1800
cacntcatgt ctacagctgg cccaagaatn aaaaaaaaca tcctgctgcg gctgctngag1860
agaggaagag tatgtggctc ctccacgggg gcctctgccc accncttcag gtggttccct1920
tgtgancacc gttcatcccc agatcactga ggccnaggcc atgtttgggn gccttgttct1980
gnacagcatt ctggctgagg ctnggtcggt tggcnnctcc tggctggttt ttnttctgtt2040
ccntccccga ngaagccctc tggnncccc anggaaacct gttgtgcaga gctcttcccc2100
ggagacctcc nacacanccc tggnccttga agtggagtct gtgnactgnc tctgcattnc2160
tctgcttttn aaaaaaacca ttgcaggtgn ccagtgtccc atatgttncc tcctngacag2220
ntttgatgtg gtncattctc ngggcctctc agtgccttagc aagtagataa tgtaagggat2280
gtnggcagca aatggaaatg actacaaaca ctctcctatc aatcacttca ggctactttt2340
atgagtttagc cagatgcttg tgtatcctca ngaccaaact gattcatgta caaataataa2400
aatgtttact cttttgtaaa aaaaaaaaaa aaaa
2434

```

<210> 553

<400> 553

000

<210> 554

<211> 1457

<212> DNA

<213> homo sapiens

<400> 554

```

actaaccag agttgtggca ttattaatta tcaactggtct tcttaatcgt aaaacggggg 60
accccagagg caaggaaatt tccattaccc tatattgggc ttaaacttaa aggagtatat 120
ccactatcaa gagcttagta caaaggctgg ggtgaagtta cattatacct gggcgtttta 180
ccataccagg gacccccact caacaatgac tgtggaagac caaaggagat acctaggttc 240
agattataat aaatcaccca gcaccacctg aatgtattat ccacaaagat atagcaataa 300
taaaggttat atatacatat atttatcttg gtaacctgag ggctaaaaaac gtggaataacg 360
ataattcttc tcaagaggtc catctgtaag aaagggaccc aaaaggacag tgtttgtggt 420
gcataaaata tgggtaaagt ggagttggga acaaagggtg gtttctttag ctctttccac 480
atctctcttt gataaggact gaaacctgt tgattcatga taaacgtttc cttttttttt 540
ttttttggca gcggggagag ggaaagagga ggaaatgggg tttgaggacc atggcttacc 600
tttctgcct ttgacctatc acacccatt tcctcctctt tccctctccc cgctgccaaa 660
aaaaaaaaaa aggaaacgtt tatcatgaat caacagggtt tcagtcctta tcaaagagag 720
atgtggaaaag agctaaagaa accacctttt gttcccaact ccactttacc catattttat 780
gcaacacaaa cactgtcctt ttgggtccct ttcttacaga tggacctctt gagaagaatt 840
atcgtattcc acgttttttg ccctcaggtt accaagataa atatatgtat atataacct 900
tattattgct atactttgt ggataatata ttcaggtggg gctgggtgat ttattataat 960
ctgaacctag gtatatcctt tggctctcca cagtcatgtt gaggtgggct ccctgggtatg1020
gtaaaaagcc aggtataatg taacttcacc ccagcctttg tactaagctc ttgatagtg1080
atatactctt ttaagtttag ccccaatata gggtaatgga aatttcctgc cctctgggtt1140

```



09673395 122700

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ser        | Glu<br>50  | Ile        | Leu        | Asp        | Gly        | Asn<br>55  | Gln        | Leu        | His        | Ile        | Ala<br>60  | Asp        | Glu        | Val        | Glu        |
| Phe<br>65  | Thr        | Val        | Val        | Pro        | Asp<br>70  | Met        | Leu        | Ser        | Ala        | Gln<br>75  | Arg        | Asn        | His        | Ala        | Ile<br>80  |
| Arg        | Ile        | Lys        | Lys        | Leu<br>85  | Pro        | Lys        | Gly        | Thr        | Val<br>90  | Ser        | Phe        | His        | Ser        | His<br>95  | Ser        |
| Asp        | His        | Arg        | Phe<br>100 | Leu        | Gly        | Thr        | Val        | Glu<br>105 | Lys        | Glu        | Ala        | Thr        | Phe<br>110 | Ser        | Asn        |
| Pro        | Lys        | Thr<br>115 | Thr        | Ser        | Pro        | Asn        | Lys<br>120 | Gly        | Lys        | Glu        | Lys        | Glu<br>125 | Ala        | Glu        | Asp        |
| Gly        | Ile<br>130 | Ile        | Ala        | Tyr        | Asp        | Asp<br>135 | Cys        | Gly        | Val        | Lys        | Leu<br>140 | Thr        | Ile        | Ala        | Phe        |
| Gln<br>145 | Ala        | Lys        | Asp        | Val        | Glu<br>150 | Gly        | Ser        | Thr        | Ser        | Pro<br>155 | Gln        | Ile        | Gly        | Asp        | Lys<br>160 |
| Val        | Glu        | Phe        | Ser        | Ile<br>165 | Ser        | Asp        | Lys        | Gln        | Arg<br>170 | Pro        | Gly        | Gln        | Gln        | Val<br>175 | Ala        |
| Thr        | Cys        | Val        | Arg<br>180 | Leu        | Leu        | Gly        | Arg        | Asn<br>185 | Ser        | Asn        | Ser        | Lys        | Arg<br>190 | Leu        | Leu        |
| Gly        | Tyr        | Val<br>195 | Ala        | Thr        | Leu        | Lys        | Asp<br>200 | Asn        | Phe        | Gly        | Phe        | Ile<br>205 | Glu        | Thr        | Ala        |
| Asn        | His<br>210 | Asp        | Lys        | Glu        | Ile        | Phe<br>215 | Phe        | His        | Tyr        | Ser        | Glu<br>220 | Phe        | Ser        | Gly        | Asp        |
| Val<br>225 | Asp        | Ser        | Leu        | Glu        | Leu<br>230 | Gly        | Asp        | Met        | Val        | Glu<br>235 | Tyr        | Ser        | Leu        | Ser        | Lys<br>240 |
| Gly        | Lys        | Gly        | Asn        | Lys<br>245 | Val        | Ser        | Ala        | Glu        | Lys<br>250 | Val        | Asn        | Lys        | Thr        | His<br>255 | Ser        |
| Val        | Asn        | Gly        | Ile<br>260 | Thr        | Glu        | Glu        | Ala        | Asp<br>265 | Pro        | Thr        | Ile        | Tyr        | Ser<br>270 | Gly        | Lys        |
| Val        | Ile        | Arg<br>275 | Pro        | Leu        | Arg        | Ser        | Val<br>280 | Asp        | Pro        | Thr        | Gln        | Thr<br>285 | Glu        | Tyr        | Gln        |
| Gly        | Met<br>290 | Ile        | Glu        | Ile        | Val        | Glu<br>295 | Glu        | Gly        | Asp        | Met        | Lys<br>300 | Gly        | Glu        | Val        | Tyr        |
| Pro<br>305 | Phe        | Gly        | Ile        | Val        | Gly<br>310 | Met        | Ala        | Asn        | Lys        | Gly<br>315 | Asp        | Cys        | Leu        | Gln        | Lys<br>320 |
| Gly        | Glu        | Ser        | Val        | Lys<br>325 | Phe        | Gln        | Leu        | Cys        | Val<br>330 | Leu        | Gly        | Gln        | Asn        | Ala<br>335 | Gln        |
| Thr        | Met        | Ala        | Tyr<br>340 | Asn        | Ile        | Thr        | Pro        | Leu<br>345 | Arg        | Arg        | Ala        | Thr        | Val<br>350 | Glu        | Cys        |
| Val        | Lys        | Asp<br>355 | Gln        | Phe        | Gly        | Phe        | Ile<br>360 | Asn        | Tyr        | Glu        | Val        | Gly<br>365 | Asp        | Ser        | Lys        |
| Lys        | Leu<br>370 | Phe        | Phe        | His        | Val        | Lys<br>375 | Glu        | Val        | Gln        | Asp        | Gly<br>380 | Ile        | Glu        | Leu        | Gln        |

00673395-122700

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ala<br>385 | Gly        | Asp        | Glu        | Val        | Glu<br>390 | Phe        | Ser        | Val        | Ile        | Leu<br>395 | Asn        | Gln        | Arg        | Thr        | Gly<br>400 |
| Lys        | Cys        | Ser        | Ala        | Cys<br>405 | Asn        | Val        | Trp        | Arg        | Val<br>410 | Cys        | Glu        | Gly        | Pro        | Lys<br>415 | Ala        |
| Val        | Ala        | Ala        | Pro<br>420 | Arg        | Pro        | Asp        | Arg        | Leu<br>425 | Val        | Asn        | Arg        | Leu        | Lys<br>430 | Asn        | Ile        |
| Thr        | Leu        | Asp<br>435 | Asp        | Ala        | Ser        | Ala        | Pro<br>440 | Arg        | Leu        | Met        | Val        | Leu<br>445 | Arg        | Gln        | Pro        |
| Arg        | Gly<br>450 | Pro        | Asp        | Asn        | Ser        | Met<br>455 | Gly        | Phe        | Gly        | Ala        | Glu<br>460 | Arg        | Lys        | Ile        | Arg        |
| Gln<br>465 | Ala        | Gly        | Val        | Ile        | Asp<br>470 |            |            |            |            |            |            |            |            |            |            |

<210> 562  
 <211> 126  
 <212> PRT  
 <213> homo sapiens

<400> 562

|           |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Leu<br>1  | Asn       | Ala        | Ile        | Leu<br>5  | Asn       | Phe       | Phe        | His        | Met<br>10 | Glu       | Lys       | Glu        | Leu        | Leu<br>15 | Ala       |
| Ile       | Ser       | Tyr        | Phe<br>20  | Ile       | Val       | Asn       | Glu        | Ala<br>25  | Lys       | Leu       | Ile       | Phe        | His<br>30  | Thr       | Phe       |
| His       | Cys       | Gly<br>35  | Pro        | Ala       | Gln       | Gly       | Cys<br>40  | Asp        | Val       | Val       | Ser       | His<br>45  | Ser        | Leu       | Cys       |
| Ile       | Leu<br>50 | Ala        | Gln        | Asp       | Thr       | Gln<br>55 | Leu        | Glu        | Leu       | Asp       | Ala<br>60 | Leu        | Pro        | Phe       | Leu       |
| Gln<br>65 | Ala       | Ile        | Pro        | Phe       | Val<br>70 | Gly       | His        | Pro        | Asn       | Asp<br>75 | Ala       | Lys        | Trp        | Ile       | Asp<br>80 |
| Leu       | Thr       | Phe        | His        | Ile<br>85 | Ala       | Leu       | Leu        | His        | Asn<br>90 | Leu       | Asn       | His        | Ser        | Leu<br>95 | Val       |
| Leu       | Ser       | Leu        | Cys<br>100 | Trp       | Ile       | Asn       | Thr        | Pro<br>105 | Gln       | Gly       | Ala       | Asn        | Tyr<br>110 | Phe       | Ala       |
| Arg       | Val       | Asn<br>115 | Gly        | Gly       | Ile       | Ser       | Phe<br>120 | Leu        | Ser       | Asn       | Ala       | Ile<br>125 | His        |           |           |

<210> 563  
 <211> 85  
 <212> PRT  
 <213> homo sapiens

<400> 563

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Lys<br>1 | Ser | His | Thr       | Ser<br>5 | Cys | Asn | Leu | Leu       | Ser<br>10 | Arg | Pro | Leu | Phe       | Val<br>15 | Thr |
| Asn      | Thr | Lys | Phe<br>20 | Asn      | Leu | Ile | Ser | Tyr<br>25 | Leu       | Arg | Arg | Ser | Arg<br>30 | Ser       | Phe |

|           |           |           |     |           |           |           |           |     |     |           |           |           |     |     |           |
|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|
| His       | Ile       | Leu<br>35 | Gly | Leu       | Lys       | Ser       | Asn<br>40 | Ser | Gln | Phe       | His       | Pro<br>45 | Thr | Val | Ile       |
| Ile       | Ser<br>50 | Asn       | Asn | Ala       | Ile       | Leu<br>55 | Ser       | Leu | Leu | Leu       | Phe<br>60 | Ala       | Phe | Ile | Trp       |
| Ala<br>65 | Ser       | Gly       | Phe | Arg       | Ile<br>70 | Gly       | Lys       | Ser | Gly | Phe<br>75 | Phe       | Phe       | Tyr | Arg | Ala<br>80 |
| Gln       | Lys       | Thr       | Val | Ile<br>85 |           |           |           |     |     |           |           |           |     |     |           |

<210> 564  
 <211> 549  
 <212> PRT  
 <213> homo sapiens

<400> 564

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Leu<br>1   | Tyr        | Pro        | Asn        | Phe<br>5   | Leu        | Val        | Asn        | Glu        | Leu<br>10  | Ile        | Leu        | Lys        | Gln        | Lys<br>15  | Gln        |
| Arg        | Phe        | Glu        | Glu<br>20  | Lys        | Arg        | Phe        | Lys        | Leu<br>25  | Asp        | His        | Ser        | Val        | Ser<br>30  | Ser        | Thr        |
| Asn        | Gly        | His<br>35  | Arg        | Trp        | Gln        | Ile        | Phe<br>40  | Gln        | Asp        | Trp        | Leu        | Gly<br>45  | Thr        | Asp        | Gln        |
| Asp        | Asn<br>50  | Leu        | Asp        | Leu        | Ala        | Asn<br>55  | Val        | Asn        | Leu        | Met        | Leu<br>60  | Glu        | Leu        | Leu        | Val        |
| Gln<br>65  | Lys        | Lys        | Lys        | Gln        | Leu<br>70  | Glu        | Ala        | Glu        | Ser        | His<br>75  | Ala        | Ala        | Gln        | Leu        | Gln<br>80  |
| Ile        | Leu        | Met        | Glu        | Phe<br>85  | Leu        | Lys        | Val        | Ala        | Arg<br>90  | Arg        | Asn        | Lys        | Arg        | Glu<br>95  | Gln        |
| Leu        | Glu        | Gln        | Ile<br>100 | Gln        | Lys        | Glu        | Leu        | Ser<br>105 | Val        | Leu        | Glu        | Glu        | Asp<br>110 | Ile        | Lys        |
| Arg        | Val        | Glu<br>115 | Glu        | Met        | Ser        | Gly        | Leu<br>120 | Tyr        | Ser        | Pro        | Val        | Ser<br>125 | Glu        | Asp        | Ser        |
| Thr        | Val<br>130 | Pro        | Gln        | Phe        | Glu        | Ala<br>135 | Pro        | Ser        | Pro        | Ser        | His<br>140 | Ser        | Ser        | Ile        | Ile        |
| Asp<br>145 | Ser        | Thr        | Glu        | Tyr        | Ser<br>150 | Gln        | Pro        | Pro        | Gly        | Phe<br>155 | Ser        | Gly        | Ser        | Ser        | Gln<br>160 |
| Thr        | Lys        | Lys        | Gln        | Pro<br>165 | Trp        | Tyr        | Asn        | Ser        | Thr<br>170 | Leu        | Ala        | Ser        | Arg        | Arg<br>175 | Lys        |
| Arg        | Leu        | Thr        | Ala<br>180 | His        | Phe        | Glu        | Asp        | Leu<br>185 | Glu        | Gln        | Cys        | Tyr        | Phe<br>190 | Ser        | Thr        |
| Arg        | Met        | Ser<br>195 | Arg        | Ile        | Ser        | Asp        | Asp<br>200 | Ser        | Arg        | Thr        | Ala        | Ser<br>205 | Gln        | Leu        | Asp        |
| Glu        | Phe<br>210 | Gln        | Glu        | Cys        | Leu        | Ser<br>215 | Lys        | Phe        | Thr        | Arg        | Tyr<br>220 | Asn        | Ser        | Val        | Arg        |
| Pro<br>225 | Leu        | Ala        | Thr        | Leu        | Ser<br>230 | Tyr        | Ala        | Ser        | Asp        | Leu<br>235 | Tyr        | Asn        | Gly        | Ser        | Ser<br>240 |

00673395 122700



09673395-122700

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ile        | Val        | Ser        | Ser        | Ile<br>245 | Glu        | Phe        | Asp        | Arg        | Asp<br>250 | Cys        | Asp        | Tyr        | Phe        | Ala<br>255 | Ile        |
| Ala        | Gly        | Val        | Thr<br>260 | Lys        | Lys        | Ile        | Lys        | Val<br>265 | Tyr        | Glu        | Tyr        | Asp        | Thr<br>270 | Val        | Ile        |
| Gln        | Asp        | Ala<br>275 | Val        | Asp        | Ile        | His        | Tyr<br>280 | Pro        | Glu        | Asn        | Glu        | Met<br>285 | Thr        | Cys        | Asn        |
| Ser        | Lys<br>290 | Ile        | Ser        | Cys        | Ile        | Ser<br>295 | Trp        | Ser        | Ser        | Tyr        | His<br>300 | Lys        | Asn        | Leu        | Leu        |
| Ala<br>305 | Ser        | Ser        | Asp        | Tyr        | Glu<br>310 | Gly        | Thr        | Val        | Ile        | Leu<br>315 | Trp        | Asp        | Gly        | Phe        | Thr<br>320 |
| Gly        | Gln        | Arg        | Ser        | Lys<br>325 | Val        | Tyr        | Gln        | Glu        | His<br>330 | Glu        | Lys        | Arg        | Cys        | Trp<br>335 | Ser        |
| Val        | Asp        | Phe        | Asn<br>340 | Leu        | Met        | Asp        | Pro        | Lys<br>345 | Leu        | Leu        | Ala        | Ser        | Gly<br>350 | Ser        | Asp        |
| Asp        | Ala        | Lys<br>355 | Val        | Lys        | Leu        | Trp        | Ser<br>360 | Thr        | Asn        | Leu        | Asp        | Asn<br>365 | Ser        | Val        | Ala        |
| Ser        | Ile<br>370 | Glu        | Ala        | Lys        | Ala        | Asn<br>375 | Val        | Cys        | Cys        | Val        | Lys<br>380 | Phe        | Ser        | Pro        | Ser        |
| Ser<br>385 | Arg        | Tyr        | His        | Leu        | Ala<br>390 | Phe        | Gly        | Cys        | Ala        | Asp<br>395 | His        | Cys        | Val        | His        | Tyr<br>400 |
| Tyr        | Asp        | Leu        | Arg        | Asn<br>405 | Thr        | Lys        | Gln        | Pro        | Ile<br>410 | Met        | Val        | Phe        | Lys        | Gly<br>415 | His        |
| Arg        | Lys        | Ala        | Val<br>420 | Ser        | Tyr        | Ala        | Lys        | Phe<br>425 | Val        | Ser        | Gly        | Glu        | Glu<br>430 | Ile        | Val        |
| Ser        | Ala        | Ser<br>435 | Thr        | Asp        | Ser        | Gln        | Leu<br>440 | Lys        | Leu        | Trp        | Asn        | Val<br>445 | Gly        | Lys        | Pro        |
| Tyr        | Cys<br>450 | Leu        | Arg        | Ser        | Phe        | Lys<br>455 | Gly        | His        | Ile        | Asn        | Glu<br>460 | Lys        | Asn        | Phe        | Val        |
| Gly<br>465 | Leu        | Ala        | Ser        | Asn        | Gly<br>470 | Asp        | Tyr        | Ile        | Ala        | Cys<br>475 | Gly        | Ser        | Glu        | Asn        | Asn<br>480 |
| Ser        | Leu        | Tyr        | Leu        | Tyr<br>485 | Tyr        | Lys        | Gly        | Leu        | Ser<br>490 | Lys        | Thr        | Leu        | Leu        | Thr<br>495 | Phe        |
| Lys        | Phe        | Asp        | Thr<br>500 | Val        | Lys        | Ser        | Val        | Leu<br>505 | Asp        | Lys        | Asp        | Arg        | Lys<br>510 | Glu        | Asp        |
| Asp        | Thr        | Asn<br>515 | Glu        | Phe        | Val        | Ser        | Ala<br>520 | Val        | Cys        | Trp        | Arg        | Ala<br>525 | Leu        | Pro        | Asp        |
| Gly        | Glu<br>530 | Ser        | Asn        | Val        | Leu        | Ile<br>535 | Ala        | Ala        | Asn        | Ser        | Gln<br>540 | Gly        | Thr        | Ile        | Lys        |
| Val<br>545 | Leu        | Glu        | Leu        | Val        |            |            |            |            |            |            |            |            |            |            |            |

<210> 565

<211> 132

<212> PRT  
<213> homo sapiens

<400> 565

|           |            |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
|-----------|------------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Thr<br>1  | Leu        | Tyr        | Phe        | Val<br>5  | Tyr       | Ile       | Asp        | Met        | Cys<br>10 | Asn       | Ser       | Gln        | Arg        | Gly<br>15 | Trp       |
| Glu       | Ile        | Arg        | Thr<br>20  | Leu       | Gln       | Ile       | Ile        | His<br>25  | Cys       | Tyr       | Ile       | Ile        | Val<br>30  | His       | Ile       |
| Cys       | Tyr        | Phe<br>35  | Val        | Thr       | Phe       | Val       | Phe<br>40  | Ser        | Phe       | Val       | Phe       | Phe<br>45  | Phe        | Phe       | Phe       |
| Phe       | Phe<br>50  | Phe        | Phe        | Cys       | Gly       | Ser<br>55 | Ile        | Asn        | Phe       | Tyr       | Cys<br>60 | Phe        | Val        | Ile       | Tyr       |
| Phe<br>65 | Tyr        | Ser        | Lys        | Glu       | Phe<br>70 | Val       | Ser        | Leu        | Ser       | Gln<br>75 | Lys       | Leu        | Asp        | Asn       | Thr<br>80 |
| Thr       | Lys        | Ser        | Ser        | Asn<br>85 | Val       | His       | Gly        | Val        | Thr<br>90 | Leu       | Met       | Val        | Glu        | Ser<br>95 | Trp       |
| Leu       | Gly        | Ile        | Pro<br>100 | Asn       | Val       | Pro       | Lys        | Val<br>105 | Ile       | Lys       | Glu       | Gly        | Lys<br>110 | Glu       | Lys       |
| Lys       | Lys        | Lys<br>115 | Ile        | Phe       | Lys       | Thr       | Asn<br>120 | Pro        | Lys       | Pro       | Met       | Met<br>125 | Thr        | Leu       | Gly       |
| Arg       | Asp<br>130 | Ile        | Thr        |           |           |           |            |            |           |           |           |            |            |           |           |

<210> 566  
<211> 90  
<212> PRT  
<213> homo sapiens

<400> 566

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Gly<br>1  | Thr       | Val       | Leu       | Ser<br>5  | Ser       | Leu       | Thr       | Gly       | Glu<br>10 | Tyr       | Lys       | Pro       | Leu       | Ile<br>15 | Ser       |
| Ser       | Thr       | Leu       | Leu<br>20 | Ile       | Ser       | Ser       | Ser       | Lys<br>25 | Thr       | Leu       | Ser       | Ser       | Phe<br>30 | Trp       | Ile       |
| Cys       | Ser       | Ser<br>35 | Cys       | Ser       | Leu       | Leu       | Phe<br>40 | Leu       | Leu       | Ala       | Thr       | Leu<br>45 | Arg       | Asn       | Ser       |
| Ile       | Arg<br>50 | Ile       | Cys       | Ser       | Trp       | Ala<br>55 | Ala       | Cys       | Asp       | Ser       | Ala<br>60 | Ser       | Ser       | Cys       | Phe       |
| Phe<br>65 | Phe       | Cys       | Thr       | Ser       | Asn<br>70 | Ser       | Asn       | Ile       | Arg       | Leu<br>75 | Thr       | Leu       | Ala       | Lys       | Ser<br>80 |
| Arg       | Leu       | Ser       | Trp       | Ser<br>85 | Val       | Pro       | Asn       | Gln       | Ser<br>90 |           |           |           |           |           |           |

<210> 567  
<211> 331  
<212> PRT  
<213> homo sapiens

<400> 567

002227 5652960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ser<br>1   | Ala        | Asn        | His        | Lys<br>5   | Leu        | Glu        | Val        | Asn        | Gly<br>10  | Thr        | Asp        | Gly        | Leu        | Ala<br>15  | Pro        |
| Val        | Glu        | Val        | Glu<br>20  | Glu        | Leu        | Leu        | Arg        | Gln<br>25  | Ala        | Ser        | Glu        | Arg        | Asn<br>30  | Ser        | Lys        |
| Ser        | Pro        | Thr<br>35  | Glu        | Tyr        | His        | Glu        | Pro<br>40  | Val        | Tyr        | Ala        | Asn<br>45  | Pro        | Phe        | Tyr        | Arg        |
| Pro        | Thr<br>50  | Thr        | Pro        | Gln        | Arg        | Glu<br>55  | Thr        | Val        | Thr        | Pro        | Gly<br>60  | Pro        | Asn        | Phe        | Gln        |
| Glu<br>65  | Arg        | Ile        | Lys        | Ile        | Lys<br>70  | Thr        | Asn        | Gly        | Leu        | Gly<br>75  | Ile        | Gly        | Val        | Asn        | Glu<br>80  |
| Ser        | Ile        | His        | Asn        | Met<br>85  | Gly        | Asn        | Gly        | Leu        | Ser<br>90  | Glu        | Glu        | Arg        | Gly        | Asn<br>95  | Asn        |
| Phe        | Asn        | His        | Ile<br>100 | Ser        | Pro        | Ile        | Pro<br>105 | Val        | Pro        | His        | Pro        | Arg<br>110 | Ser        | Val        |            |
| Ile        | Gln        | Gln<br>115 | Ala        | Glu        | Glu        | Lys        | Leu<br>120 | His        | Thr        | Pro        | Gln        | Lys<br>125 | Arg        | Leu        | Met        |
| Thr        | Pro<br>130 | Trp        | Glu        | Glu        | Ser        | Asn<br>135 | Val        | Met        | Gln        | Asp        | Lys<br>140 | Asp        | Ala        | Pro        | Ser        |
| Pro<br>145 | Lys        | Pro        | Arg        | Leu        | Ser<br>150 | Pro        | Arg        | Glu        | Thr        | Ile<br>155 | Phe        | Gly        | Lys        | Ser        | Glu<br>160 |
| His        | Gln        | Asn        | Ser        | Ser<br>165 | Pro        | Thr        | Cys        | Gln        | Glu<br>170 | Asp        | Glu        | Glu        | Asp        | Val<br>175 | Arg        |
| Tyr        | Asn        | Ile        | Val<br>180 | His        | Ser        | Leu        | Pro<br>185 | Pro        | Asp        | Ile        | Asn        | Asp        | Thr<br>190 | Glu        | Pro        |
| Val        | Thr        | Met<br>195 | Ile        | Phe        | Met        | Gly        | Tyr<br>200 | Gln        | Gln        | Ala        | Glu        | Asp<br>205 | Ser        | Glu        | Glu        |
| Asp        | Lys<br>210 | Lys        | Phe        | Leu        | Thr        | Gly<br>215 | Tyr        | Asp        | Gly        | Ile        | Ile<br>220 | His        | Ala        | Glu        | Leu        |
| Val<br>225 | Val        | Ile        | Asp        | Asp        | Glu<br>230 | Glu        | Glu        | Glu        | Asp        | Glu<br>235 | Gly        | Glu        | Ala        | Glu        | Lys<br>240 |
| Pro        | Ser        | Tyr        | His        | Pro<br>245 | Ile        | Ala        | Pro        | His        | Ser<br>250 | Gln        | Val        | Tyr        | Gln        | Pro<br>255 | Ala        |
| Lys        | Pro        | Thr        | Pro<br>260 | Leu        | Pro        | Arg        | Lys        | Arg<br>265 | Ser        | Glu        | Ala        | Ser        | Pro<br>270 | His        | Glu        |
| Asn        | Thr        | Asn<br>275 | His        | Lys        | Ser        | Pro        | His<br>280 | Lys        | Asn        | Ser        | Ile        | Ser<br>285 | Leu        | Lys        | Glu        |
| Gln        | Glu<br>290 | Glu        | Ser        | Leu        | Gly        | Ser<br>295 | Pro        | Val        | His        | His        | Ser<br>300 | Pro        | Phe        | Asp        | Ala        |
| Gln<br>305 | Thr        | Thr        | Gly        | Asp        | Gly<br>310 | Thr        | Glu        | Asp        | Pro        | Ser<br>315 | Leu        | Thr        | Ala        | Leu        | Arg<br>320 |
| Met        | Arg        | Met        | Ala        | Lys<br>325 | Leu        | Gly        | Lys        | Lys        | Val<br>330 | Ile        |            |            |            |            |            |

002221 56564960

<210> 568  
 <211> 216  
 <212> PRT  
 <213> homo sapiens

<400> 568

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Leu<br>1   | Ser        | Leu        | Thr        | Ser<br>5   | Arg        | Met        | Glu        | Glu        | Ala<br>10  | Glu        | Leu        | Val        | Lys        | Gly<br>15  | Arg        |
| Leu        | Gln        | Ala        | Ile<br>20  | Thr        | Asp        | Lys        | Arg        | Lys<br>25  | Ile        | Gln        | Glu        | Glu        | Ile<br>30  | Ser        | Gln        |
| Lys        | Arg        | Leu<br>35  | Lys        | Ile        | Glu        | Glu        | Asp<br>40  | Lys        | Leu        | Lys        | His        | Gln<br>45  | His        | Leu        | Lys        |
| Lys        | Lys<br>50  | Ala        | Leu        | Arg        | Glu        | Lys<br>55  | Trp        | Leu        | Leu        | Asp        | Gly<br>60  | Ile        | Ser        | Ser        | Gly        |
| Lys<br>65  | Glu        | Gln        | Glu        | Glu        | Met<br>70  | Lys        | Lys        | Gln        | Asn        | Gln<br>75  | Gln        | Asp        | Gln        | His        | Gln<br>80  |
| Ile        | Gln        | Val        | Leu        | Glu<br>85  | Gln        | Ser        | Ile        | Leu        | Arg<br>90  | Leu        | Glu        | Lys        | Glu        | Ile<br>95  | Gln        |
| Asp        | Leu        | Glu        | Lys<br>100 | Ala        | Glu        | Leu        | Gln        | Ile<br>105 | Ser        | Thr        | Lys        | Glu        | Glu<br>110 | Ala        | Ile        |
| Leu        | Lys        | Lys<br>115 | Leu        | Lys        | Ser        | Ile        | Glu<br>120 | Arg        | Thr        | Thr        | Glu        | Asp<br>125 | Ile        | Ile        | Arg        |
| Ser        | Val<br>130 | Lys        | Val        | Glu        | Arg        | Glu<br>135 | Glu        | Arg        | Ala        | Glu        | Glu<br>140 | Ser        | Ile        | Glu        | Asp        |
| Ile<br>145 | Tyr        | Ala        | Asn        | Ile        | Pro<br>150 | Asp        | Leu        | Pro        | Lys        | Ser<br>155 | Tyr        | Ile        | Pro        | Ser        | Arg<br>160 |
| Leu        | Arg        | Lys        | Glu        | Ile<br>165 | Asn        | Glu        | Glu        | Lys        | Glu<br>170 | Asp        | Asp        | Glu        | Gln        | Asn<br>175 | Arg        |
| Lys        | Ala        | Leu        | Tyr<br>180 | Ala        | Met        | Glu        | Ile        | Lys<br>185 | Val        | Glu        | Lys        | Asp        | Leu<br>190 | Lys        | Thr        |
| Gly        | Glu        | Ser<br>195 | Thr        | Val        | Leu        | Ser        | Ser<br>200 | Asn        | Thr        | Ser        | Gly        | His<br>205 | Gln        | Met        | Thr        |
| Leu        | Lys<br>210 | Gly        | Thr        | Gly        | Val        | Lys<br>215 | Val        |            |            |            |            |            |            |            |            |

<210> 569  
 <211> 132  
 <212> PRT  
 <213> homo sapiens

<400> 569

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Leu<br>1 | Glu | Lys | Leu       | His<br>5 | Ile | Cys | Phe | Pro       | Gln<br>10 | Leu | Phe | Gly | Asn       | Phe<br>15 | Ser |
| Gln      | Ile | Met | Thr<br>20 | Thr      | Thr | Tyr | Ser | His<br>25 | Gly       | Leu | Ile | Trp | Tyr<br>30 | Thr       | Val |

002221"56EEZ960

|           |            |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
|-----------|------------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Met       | Ile        | Ile<br>35  | Phe        | Trp       | Thr       | Ser       | Glu<br>40  | Lys        | Ile       | Asn       | Lys       | Ile<br>45  | Ser        | Arg       | Arg       |
| Glu       | Ile<br>50  | Cys        | Lys        | Cys       | Phe       | Leu<br>55 | Val        | Ser        | Ser       | Ser       | Lys<br>60 | Asp        | Val        | Tyr       | Ile       |
| Gly<br>65 | Gly        | Thr        | Thr        | Leu       | Arg<br>70 | Ser       | Pro        | Phe        | Phe       | Pro<br>75 | Ala       | Leu        | Pro        | Phe       | Ser<br>80 |
| Ser       | Leu        | Lys        | Leu        | Leu<br>85 | Arg       | Met       | Asp        | Pro        | Gln<br>90 | Ser       | His       | Leu        | Gln        | Leu<br>95 | Ser       |
| Glu       | His        | Gln        | Met<br>100 | Gly       | Asn       | Gly       | Gly        | Gln<br>105 | Gly       | Cys       | Leu       | Ser        | Phe<br>110 | Leu       | Leu       |
| Ala       | Leu        | Ser<br>115 | Glu        | Ile       | Trp       | Asn       | Phe<br>120 | Cys        | Gly       | Gly       | Ile       | Tyr<br>125 | Asp        | Leu       | Cys       |
| Phe       | His<br>130 | Glu        | Asp        |           |           |           |            |            |           |           |           |            |            |           |           |

<210> 570  
 <211> 199  
 <212> PRT  
 <213> homo sapiens

<400> 570

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Asn<br>1   | Phe        | Val        | Thr        | Pro<br>5   | Trp        | Ser        | Phe        | Trp        | Trp<br>10  | Trp        | Thr        | Lys        | Leu        | Thr<br>15  | Phe        |
| Phe        | Phe        | Pro        | Leu<br>20  | Ala        | Leu        | Lys        | Lys        | Ser<br>25  | Ser        | Arg        | Val        | Ser        | Ser<br>30  | Ser        | His        |
| Leu        | Pro        | Arg<br>35  | Ile        | Tyr        | Gln        | Ala        | Phe<br>40  | Leu        | Met        | Ser        | Ala        | Thr<br>45  | Phe        | Asn        | Glu        |
| Asp        | Val<br>50  | Gln        | Ala        | Leu        | Lys        | Glu<br>55  | Leu        | Ile        | Leu        | His        | Asn<br>60  | Pro        | Val        | Thr        | Leu        |
| Lys<br>65  | Leu        | Gln        | Glu        | Ser        | Gln<br>70  | Leu        | Pro        | Gly        | Pro        | Asp<br>75  | Gln        | Leu        | Gln        | Gln        | Phe<br>80  |
| Gln        | Val        | Val        | Cys        | Glu<br>85  | Thr        | Glu        | Glu        | Asp        | Lys<br>90  | Phe        | Leu        | Leu        | Leu        | Tyr<br>95  | Ala        |
| Leu        | Leu        | Lys        | Leu<br>100 | Ser        | Leu        | Ile        | Arg        | Gly<br>105 | Lys        | Ser        | Leu        | Leu        | Phe<br>110 | Val        | Asn        |
| Thr        | Leu        | Glu<br>115 | Arg        | Ser        | Tyr        | Arg        | Leu<br>120 | Arg        | Leu        | Phe        | Leu        | Glu<br>125 | Gln        | Phe        | Ser        |
| Ile        | Pro<br>130 | Thr        | Cys        | Val        | Leu        | Asn<br>135 | Gly        | Glu        | Leu        | Pro        | Leu<br>140 | Arg        | Ser        | Arg        | Cys        |
| His<br>145 | Ile        | Ile        | Ser        | Gln        | Phe<br>150 | Asn        | Gln        | Gly        | Phe        | Tyr<br>155 | Asp        | Cys        | Val        | Ile        | Ala<br>160 |
| Thr        | Asp        | Ala        | Glu        | Val<br>165 | Leu        | Gly        | Ala        | Pro        | Arg<br>170 | Gln        | Arg        | Ala        | Met        | Arg<br>175 | Pro        |
| Arg        | Arg        | Arg        | Ala<br>180 | Lys        | Thr        | Gly        | Thr        | Met<br>185 | Ala        | Ser        | Arg        | Phe        | Leu<br>190 | Glu        | Arg        |

002221" 5652960

Thr Val Val Ala Leu Gly His  
195

<210> 571  
<211> 195  
<212> PRT  
<213> homo sapiens

<400> 571

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gln<br>1   | Arg        | Val        | Arg        | Ala<br>5   | Ala        | Leu        | Leu        | Ser        | Ser<br>10  | Ala        | Met        | Glu        | Asp        | Ser<br>15  | Glu        |
| Ala        | Leu        | Gly        | Phe<br>20  | Glu        | His        | Met        | Gly        | Leu<br>25  | Asp        | Pro        | Arg        | Leu        | Leu<br>30  | Gln        | Ala        |
| Val        | Thr        | Asp<br>35  | Leu        | Gly        | Trp        | Ser        | Arg<br>40  | Pro        | Thr        | Leu        | Ile        | Gln<br>45  | Glu        | Lys        | Ala        |
| Ile        | Pro<br>50  | Leu        | Ala        | Leu        | Glu        | Gly<br>55  | Lys        | Asp        | Leu        | Leu        | Ala<br>60  | Arg        | Ala        | Arg        | Thr        |
| Gly<br>65  | Ser        | Gly        | Lys        | Thr        | Ala<br>70  | Ala        | Tyr        | Ala        | Ile        | Pro<br>75  | Met        | Leu        | Gln        | Leu        | Leu<br>80  |
| Leu        | His        | Arg        | Lys        | Ala<br>85  | Thr        | Gly        | Pro        | Val        | Val<br>90  | Glu        | Gln        | Ala        | Val        | Arg<br>95  | Gly        |
| Leu        | Val        | Leu        | Val<br>100 | Pro        | Thr        | Lys        | Glu        | Leu<br>105 | Ala        | Arg        | Gln        | Ala        | Gln<br>110 | Ser        | Met        |
| Ile        | Gln        | Gln<br>115 | Leu        | Ala        | Thr        | Tyr        | Cys<br>120 | Ala        | Arg        | Asp        | Val        | Arg<br>125 | Val        | Ala        | Asn        |
| Val        | Ser<br>130 | Ala        | Ala        | Glu        | Asp        | Ser<br>135 | Val        | Ser        | Gln        | Arg        | Ala<br>140 | Val        | Leu        | Met        | Glu        |
| Lys<br>145 | Pro        | Asp        | Val        | Val        | Val<br>150 | Gly        | Thr        | Pro        | Ser        | Arg<br>155 | Ile        | Leu        | Ser        | His        | Leu<br>160 |
| Gln        | Gln        | Asp        | Ser        | Leu<br>165 | Lys        | Leu        | Arg        | Asp        | Ser<br>170 | Leu        | Glu        | Leu        | Leu        | Val<br>175 | Val        |
| Asp        | Glu        | Ala        | Asp<br>180 | Leu        | Leu        | Phe        | Ser        | Phe<br>185 | Gly        | Phe        | Glu        | Glu        | Glu<br>190 | Leu        | Lys        |
| Ser        | Leu        | Leu<br>195 |            |            |            |            |            |            |            |            |            |            |            |            |            |

<210> 572  
<211> 76  
<212> PRT  
<213> homo sapiens

<400> 572

|          |     |     |           |          |     |     |     |           |           |     |     |     |           |           |     |
|----------|-----|-----|-----------|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Asp<br>1 | Ile | Gly | His       | Ser<br>5 | Asp | Ile | Pro | Ser       | Thr<br>10 | Val | Gly | Ser | Gln       | Leu<br>15 | Leu |
| Asn      | His | Gly | Leu<br>20 | Cys      | Leu | Pro | Cys | Gln<br>25 | Leu       | Leu | Gly | Arg | Asn<br>30 | Lys       | Asn |

00673395-122700



**THE UNIVERSITY OF CHICAGO**

<210> 576

000

<211> 161

<213> homo sapiens

|            |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|
| Leu<br>1   | Leu        | Pro        | Leu        | Leu<br>5  | Leu        | Leu        | Leu        | Ile        | His<br>10 | Gly        | Asp        | Thr        | Pro        | Xxx<br>15 | Gly        |
| Pro        | Gly        | Pro        | Xxx<br>20  | Xxx       | Gln        | Glu        | Gln        | Ala<br>25  | Pro       | Asn        | His        | Arg        | His<br>30  | Gly       | Leu        |
| Glu        | Glu        | Xxx<br>35  | Arg        | Ile       | Ser        | Xxx        | Lys<br>40  | Ser        | Cys       | Met        | Gly        | Xxx<br>45  | Val        | Asp       | Trp        |
| Asn        | Gly<br>50  | Pro        | Glu        | Gly       | Val        | Glu<br>55  | Ile        | Tyr        | Val       | Asp        | Gly<br>60  | Lys        | Glu        | Pro       | His        |
| Asn<br>65  | Lys        | Ser        | Gln        | Ser       | Ser<br>70  | Gln        | Leu        | Gly        | Phe       | Lys<br>75  | Thr        | Asn        | Gly        | His       | Xxx<br>80  |
| Lys        | Ser        | Ser        | Glu        | Xxx<br>85 | Val        | Xxx        | His        | Asp        | Val<br>90 | Leu        | Asp        | Asn        | Arg        | Lys<br>95 | Glu        |
| Ala        | Gly        | Val        | Lys<br>100 | Val       | Lys        | Glu        | Gly        | His<br>105 | Glu       | His        | Gln        | Asn        | Gln<br>110 | Gln       | Asp        |
| Pro        | Ala        | Ser<br>115 | Glu        | Leu       | His        | Val        | Leu<br>120 | Phe        | Gly       | Gly        | Ala        | Leu<br>125 | Thr        | His       | Gly        |
| Gly        | Asp<br>130 | Ala        | Arg        | Lys       | His        | Ala<br>135 | Leu        | Pro        | Phe       | Arg        | Thr<br>140 | Gly        | Phe        | Ser       | Arg        |
| Ser<br>145 | Thr        | Gln        | Gln        | Pro       | Pro<br>150 | Pro        | Arg        | Ala        | Arg       | Phe<br>155 | Leu        | Pro        | Leu        | Cys       | Arg<br>160 |

<210> 578

<211> 160



<212> PRT  
<213> homo sapiens

<400> 578

|            |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |  |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|--|
| Gln<br>1   | Thr        | Asp        | Asn        | Leu<br>5  | Ser        | Glu        | Arg        | Gln        | Pro<br>10 | Xxx        | Gly        | Lys        | Xxx        | Val<br>15 | Cys        |  |
| Arg        | Gly        | Cys        | Pro<br>20  | Gln       | Gly        | Glu        | Cys        | Ser<br>25  | Trp       | Glu        | Arg        | Ala        | Val<br>30  | Leu       | Leu        |  |
| Xxx        | Pro        | Gly<br>35  | Arg        | Pro       | Ala        | Leu        | Ser<br>40  | Xxx        | Thr       | Leu        | Leu        | Xxx<br>45  | Lys        | Xxx       | Ala        |  |
| Pro        | Cys<br>50  | Glu        | Val        | Asn       | Trp        | Val<br>55  | Xxx        | Val        | Arg       | Gly        | Ser<br>60  | Xxx        | Xxx        | Cys       | Xxx        |  |
| Gly<br>65  | Ala        | Pro        | Ala        | Xxx       | Thr<br>70  | Pro        | Xxx        | Pro        | Xxx       | Gln<br>75  | Arg        | Xxx        | Ala        | Ala       | Ser<br>80  |  |
| Ala        | Xxx        | Ala        | Gly        | Leu<br>85 | Glu        | Xxx        | Ser        | Xxx        | Ala<br>90 | Xxx        | Ala        | Gly        | Xxx        | Ala<br>95 | Gly        |  |
| Cys        | Cys        | Cys        | Xxx<br>100 | Gly       | Leu        | Pro        | Xxx        | Val<br>105 | Trp       | Ser        | Xxx        | Leu        | Ala<br>110 | Leu       | Pro        |  |
| Thr        | Ala        | Ser<br>115 | Leu        | Glu       | Ala        | Ser        | Xxx<br>120 | Xxx        | Pro       | Arg        | Pro        | Ala<br>125 | Ala        | Ser       | Pro        |  |
| Arg        | Thr<br>130 | Ser        | Cys        | Pro       | Ser        | Thr<br>135 | Leu        | Pro        | Gln       | Ala        | Thr<br>140 | Lys        | Thr        | Pro       | Arg        |  |
| Val<br>145 | Leu        | Pro        | Asn        | Lys       | Xxx<br>150 | Xxx        | Leu        | Gly        | Thr       | Xxx<br>155 | Ser        | Lys        | Leu        | Ile       | Phe<br>160 |  |

<210> 579  
<211> 437  
<212> PRT  
<213> homo sapiens

<400> 579

|           |           |           |            |           |           |           |           |            |           |           |           |           |            |           |           |  |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|--|
| Ser<br>1  | Gln       | Gly       | Val        | Leu<br>5  | Ser       | Ser       | Asp       | Gly        | Val<br>10 | Trp       | Arg       | Val       | Lys        | Ser<br>15 | Ile       |  |
| Pro       | Asn       | Gly       | Lys<br>20  | Gly       | Ser       | Ser       | Pro       | Leu<br>25  | Pro       | Thr       | Ala       | Thr       | Thr<br>30  | Pro       | Lys       |  |
| Pro       | Leu       | Ile<br>35 | Pro        | Thr       | Glu       | Ala       | Ser<br>40 | Ile        | Arg       | Val       | Trp       | Gly<br>45 | Thr        | Ser       | Gly       |  |
| Thr       | Ser<br>50 | His       | Leu        | His       | Pro       | Arg<br>55 | Ser       | Ile        | Cys       | Met       | Ile<br>60 | Gln       | Lys        | Tyr       | Asn       |  |
| His<br>65 | Asp       | Gly       | Glu        | Ala       | Gly<br>70 | Arg       | Leu       | Glu        | Ala       | Phe<br>75 | Ser       | Gln       | Gly        | Glu       | Ser<br>80 |  |
| Val       | Leu       | Lys       | Glu        | Pro<br>85 | Lys       | Tyr       | Gln       | Glu        | Glu<br>90 | Leu       | Glu       | Asp       | Arg        | Leu<br>95 | His       |  |
| Phe       | Tyr       | Val       | Glu<br>100 | Glu       | Cys       | Asp       | Tyr       | Leu<br>105 | Gln       | Gly       | Phe       | Gln       | Ile<br>110 | Leu       | Cys       |  |

00673395-122700

[illegible]

<210> 580  
 <211> 277  
 <212> PRT  
 <213> homo sapiens

<400> 580

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Thr<br>1   | Glu        | Arg        | Leu        | Leu<br>5   | Leu        | Asp        | Gly        | Pro        | Pro<br>10  | Pro        | His        | Ser        | Pro        | Glu<br>15  | Thr        |
| Pro        | Gln        | Phe        | Pro<br>20  | Pro        | Thr        | Thr        | Gly        | Ala<br>25  | Val        | Leu        | Tyr        | Thr        | Val<br>30  | Lys        | Arg        |
| Asn        | Gln        | Val<br>35  | Gly        | Pro        | Glu        | Val        | Arg<br>40  | Ser        | Cys        | Pro        | Lys        | Ala<br>45  | Ser        | Pro        | Arg        |
| Leu        | Gln<br>50  | Lys        | Glu        | Arg        | Glu        | Gly<br>55  | Gln        | Lys        | Ala        | Val        | Ser<br>60  | Glu        | Ser        | Glu        | Ala        |
| Leu<br>65  | Met        | Leu        | Val        | Trp        | Asp<br>70  | Ala        | Ser        | Glu        | Thr        | Glu<br>75  | Lys        | Leu        | Pro        | Gly        | Thr<br>80  |
| Val        | Glu        | Pro        | Pro        | Ala<br>85  | Ser        | Phe        | Leu        | Ser        | Pro<br>90  | Val        | Ser        | Ser        | Lys        | Thr<br>95  | Arg        |
| Asp        | Ala        | Gly        | Arg<br>100 | Arg        | His        | Val        | Ser        | Gly<br>105 | Lys        | Pro        | Asp        | Thr        | Gln<br>110 | Glu        | Arg        |
| Trp        | Leu        | Pro<br>115 | Ser        | Ser        | Arg        | Ala        | Arg<br>120 | Val        | Lys        | Thr        | Arg        | Asp<br>125 | Arg        | Thr        | Cys        |
| Pro        | Val<br>130 | His        | Glu        | Ser        | Pro        | Ser<br>135 | Gly        | Ile        | Asp        | Thr        | Ser<br>140 | Glu        | Thr        | Ser        | Pro        |
| Lys<br>145 | Ala        | Pro        | Arg        | Gly        | Gly<br>150 | Leu        | Ala        | Lys        | Asp        | Ser<br>155 | Gly        | Thr        | Gln        | Ala        | Lys<br>160 |
| Gly        | Pro        | Glu        | Gly        | Glu<br>165 | Gln        | Gln        | Pro        | Lys        | Ala<br>170 | Ala        | Glu        | Ala        | Thr        | Val<br>175 | Cys        |
| Ala        | Asn        | Asn        | Ser<br>180 | Lys        | Val        | Ser        | Ser        | Thr<br>185 | Gly        | Glu        | Lys        | Val        | Val<br>190 | Leu        | Trp        |
| Thr        | Arg        | Glu<br>195 | Ala        | Asp        | Arg        | Val        | Ile<br>200 | Leu        | Thr        | Met        | Cys        | Gln<br>205 | Glu        | Gln        | Gly        |
| Ala        | Gln<br>210 | Pro        | Gln        | Thr        | Phe        | Asn<br>215 | Ile        | Ile        | Ser        | Gln        | Gln<br>220 | Leu        | Gly        | Asn        | Lys        |
| Thr<br>225 | Pro        | Ala        | Glu        | Val        | Ser<br>230 | His        | Arg        | Phe        | Arg        | Glu<br>235 | Leu        | Met        | Gln        | Leu        | Phe<br>240 |
| His        | Thr        | Ala        | Cys        | Glu<br>245 | Ala        | Ser        | Ser        | Glu        | Asp<br>250 | Glu        | Asp        | Asp        | Ala        | Thr<br>255 | Ser        |
| Thr        | Ser        | Asn        | Ala<br>260 | Asp        | Gln        | Leu        | Ser        | Asp<br>265 | His        | Gly        | Asp        | Leu        | Leu<br>270 | Ser        | Glu        |
| Glu        | Glu        | Leu<br>275 | Asp        | Glu        |            |            |            |            |            |            |            |            |            |            |            |

<210> 581  
 <211> 172

00422T 5654960

<212> PRT  
<213> homo sapiens

<400> 581

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|
| Phe<br>1   | Pro        | Glu        | Ser        | His<br>5   | Ser        | Ser        | Ser        | Ser        | Ser<br>10  | Ser        | Asp        | Arg        | Arg        | Ser<br>15 | Pro        |
| Trp        | Ser        | Asp        | Ser<br>20  | Trp        | Ser        | Ala        | Leu        | Leu<br>25  | Val        | Leu        | Val        | Ala        | Ser<br>30  | Ser       | Ser        |
| Ser        | Ser        | Glu<br>35  | Leu        | Ala        | Ser        | Gln        | Ala<br>40  | Val        | Trp        | Lys        | Ser        | Cys<br>45  | Met        | Ser       | Ser        |
| Arg        | Lys<br>50  | Arg        | Trp        | Glu        | Thr        | Ser<br>55  | Ala        | Gly        | Val        | Leu        | Phe<br>60  | Pro        | Ser        | Cys       | Trp        |
| Glu<br>65  | Met        | Met        | Leu        | Lys        | Val<br>70  | Cys        | Gly        | Cys        | Ala        | Pro<br>75  | Cys        | Ser        | Trp        | His       | Met<br>80  |
| Val        | Arg        | Ile        | Thr        | Arg<br>85  | Ser        | Ala        | Ser        | Leu        | Val<br>90  | His        | Arg        | Thr        | Thr        | Phe<br>95 | Ser        |
| Pro        | Val        | Glu        | Leu<br>100 | Thr        | Leu        | Leu        | Leu        | Leu<br>105 | Ala        | His        | Thr        | Val        | Ala<br>110 | Ser       | Ala        |
| Ala        | Phe        | Gly<br>115 | Cys        | Cys        | Ser        | Pro        | Ser<br>120 | Gly        | Pro        | Leu        | Ala        | Cys<br>125 | Val        | Pro       | Leu        |
| Ser        | Leu<br>130 | Ala        | Lys        | Pro        | Pro        | Leu<br>135 | Gly        | Ala        | Leu        | Gly        | Glu<br>140 | Val        | Ser        | Glu       | Val        |
| Ser<br>145 | Ile        | Pro        | Asp        | Gly        | Asp<br>150 | Ser        | Trp        | Thr        | Gly        | His<br>155 | Val        | Leu        | Ser        | Leu       | Val<br>160 |
| Phe        | Thr        | Leu        | Ala        | Leu<br>165 | Leu        | Glu        | Gly        | Ser        | His<br>170 | Leu        | Ser        |            |            |           |            |

<210> 582  
<211> 549  
<212> PRT  
<213> homo sapiens

<400> 582

|           |     |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Glu<br>1  | Phe | Pro       | Pro       | Gly<br>5  | Leu       | Thr       | Glu       | Pro       | Thr<br>10 | Ala       | Val       | Arg       | Ala       | Leu<br>15 | Ala       |
| Arg       | Ala | Arg       | Arg<br>20 | Thr       | Arg       | Ala       | Gly       | Ser<br>25 | Ala       | Ser       | Asp       | Pro       | Glu<br>30 | Arg       | Ser       |
| Pro       | Gly | Ala<br>35 | Met       | Ala       | Leu       | Ser       | Glu<br>40 | Leu       | Ala       | Leu       | Val       | Arg<br>45 | Trp       | Leu       | Gln       |
| Glu<br>50 | Ser | Arg       | Arg       | Ser       | Arg       | Lys<br>55 | Leu       | Ile       | Leu       | Phe       | Ile<br>60 | Val       | Phe       | Leu       | Ala       |
| Leu<br>65 | Leu | Leu       | Asp       | Asn       | Met<br>70 | Leu       | Leu       | Thr       | Val       | Val<br>75 | Val       | Pro       | Ile       | Ile       | Pro<br>80 |
| Ser       | Tyr | Leu       | Tyr       | Ser<br>85 | Ile       | Lys       | His       | Glu       | Lys<br>90 | Asn       | Ala       | Thr       | Glu       | Ile<br>95 | Gln       |

002227"5662950

00222T 5652960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Thr        | Ala        | Arg        | Pro<br>100 | Val        | His        | Thr        | Ala        | Ser<br>105 | Ile        | Ser        | Asp        | Ser        | Phe<br>110 | Gln        | Ser        |
| Ile        | Phe        | Ser<br>115 | Tyr        | Tyr        | Asp        | Asn        | Ser<br>120 | Thr        | Met        | Val        | Thr        | Gly<br>125 | Asn        | Ala        | Thr        |
| Arg        | Asp<br>130 | Leu        | Thr        | Leu        | His        | Gln<br>135 | Thr        | Ala        | Thr        | Gln        | His<br>140 | Met        | Val        | Thr        | Asn        |
| Ala<br>145 | Ser        | Ala        | Val        | Pro        | Ser<br>150 | Asp        | Cys        | Pro        | Ser        | Glu<br>155 | Asp        | Lys        | Asp        | Leu        | Leu<br>160 |
| Asn        | Glu        | Asn        | Val        | Gln<br>165 | Val        | Gly        | Leu        | Leu        | Phe<br>170 | Ala        | Ser        | Lys        | Ala        | Thr<br>175 | Val        |
| Gln        | Leu        | Ile        | Thr<br>180 | Asn        | Pro        | Phe        | Ile        | Gly<br>185 | Leu        | Leu        | Thr        | Asn        | Arg<br>190 | Ile        | Gly        |
| Tyr        | Pro        | Ile<br>195 | Pro        | Ile        | Phe        | Ala        | Gly<br>200 | Phe        | Cys        | Ile        | Met        | Phe<br>205 | Val        | Ser        | Thr        |
| Ile        | Met<br>210 | Phe        | Ala        | Phe        | Ser        | Ser<br>215 | Ser        | Tyr        | Ala        | Phe        | Leu<br>220 | Leu        | Ile        | Ala        | Arg        |
| Ser<br>225 | Leu        | Gln        | Gly        | Ile        | Gly<br>230 | Ser        | Ser        | Cys        | Ser        | Ser<br>235 | Val        | Ala        | Gly        | Met        | Gly<br>240 |
| Met        | Leu        | Ala        | Ser        | Val<br>245 | Tyr        | Thr        | Asp        | Asp        | Glu<br>250 | Glu        | Arg        | Gly        | Asn        | Val<br>255 | Met        |
| Gly        | Ile        | Ala        | Leu<br>260 | Gly        | Gly        | Leu        | Ala        | Met<br>265 | Gly        | Val        | Leu        | Val        | Gly<br>270 | Pro        | Pro        |
| Phe        | Gly        | Ser<br>275 | Val        | Leu        | Tyr        | Glu        | Phe<br>280 | Val        | Gly        | Lys        | Thr        | Ala<br>285 | Pro        | Phe        | Leu        |
| Val        | Leu<br>290 | Ala        | Ala        | Leu        | Val        | Leu<br>295 | Leu        | Asp        | Gly        | Ala        | Ile<br>300 | Gln        | Leu        | Phe        | Val        |
| Leu<br>305 | Gln        | Pro        | Ser        | Arg        | Val<br>310 | Gln        | Pro        | Glu        | Ser        | Gln<br>315 | Lys        | Gly        | Thr        | Pro        | Leu<br>320 |
| Thr        | Thr        | Leu        | Leu        | Lys<br>325 | Asp        | Pro        | Tyr        | Ile        | Leu<br>330 | Ile        | Ala        | Ala        | Gly        | Ser<br>335 | Ile        |
| Ser        | Phe        | Ala        | Asn<br>340 | Met        | Gly        | Ile        | Ala        | Met<br>345 | Leu        | Glu        | Pro        | Ala        | Leu<br>350 | Pro        | Ile        |
| Trp        | Met        | Met<br>355 | Glu        | Thr        | Met        | Cys        | Ser<br>360 | Arg        | Lys        | Trp        | Gln        | Leu<br>365 | Gly        | Val        | Ala        |
| Phe        | Leu<br>370 | Pro        | Ala        | Ser        | Ile        | Ser<br>375 | Tyr        | Leu        | Ile        | Gly        | Thr<br>380 | Asn        | Ile        | Phe        | Gly        |
| Ile<br>385 | Leu        | Ala        | His        | Lys        | Met<br>390 | Gly        | Arg        | Trp        | Leu        | Cys<br>395 | Ala        | Leu        | Leu        | Gly        | Met<br>400 |
| Ile        | Ile        | Val        | Gly        | Val<br>405 | Ser        | Ile        | Leu        | Cys        | Ile<br>410 | Pro        | Phe        | Pro        | Lys        | Asn<br>415 | Ile        |
| Tyr        | Gly        | Leu        | Ile<br>420 | Ala        | Pro        | Asn        | Phe        | Gly<br>425 | Val        | Gly        | Phe        | Ala        | Asn<br>430 | Gly        | Met        |

[illegible]

```
<210> 583
<211> 121
<212> PRT
<213> homo sapiens
```

<400> 583

|           |           |            |            |           |           |           |            |            |           |           |           |           |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Tyr<br>1  | Leu       | Leu        | Ser        | His<br>5  | Trp       | Asn       | Gln        | Tyr        | Phe<br>10 | Trp       | Asp       | Thr       | Cys        | Thr<br>15 | Gln       |
| Asn       | Gly       | Glu        | Val<br>20  | Ala       | Leu       | Cys       | Ser        | Ser<br>25  | Gly       | Asn       | Asp       | Asn       | Cys<br>30  | Trp       | Ser       |
| Gln       | His       | Phe<br>35  | Met        | Tyr       | Ser       | Ile       | Ser<br>40  | Lys        | Lys       | His       | Leu       | Trp<br>45 | Thr        | His       | Ser       |
| Ser       | Glu<br>50 | Leu        | Trp        | Ser       | Trp       | Phe<br>55 | Cys        | Lys        | Trp       | Asn       | Gly<br>60 | Gly       | Phe        | Val       | Asn       |
| Asp<br>65 | Ala       | Tyr        | His        | Gly       | Leu<br>70 | Pro       | Arg        | Arg        | Pro       | Ala<br>75 | Ala       | Arg       | Val        | Arg       | Leu<br>80 |
| Trp       | Glu       | Cys        | Val        | Arg<br>85 | His       | Cys       | Gly        | Cys        | Gly<br>90 | Ile       | Leu       | Tyr       | Gly        | Val<br>95 | Cys       |
| Tyr       | Arg       | Ser        | Phe<br>100 | Cys       | Trp       | Trp       | Cys        | Tyr<br>105 | Cys       | Lys       | Gly       | Asn       | Trp<br>110 | Ile       | Ser       |
| Met       | Ala       | His<br>115 | Asp        | Asn       | Tyr       | Trp       | Asp<br>120 | Asn        |           |           |           |           |            |           |           |

```
<210> 584
<211> 106
<212> PRT
<213> homo sapiens
```

<400> 584

Asp Gly Gly Ser Val His Trp Pro Gly Arg Leu Asp Phe Cys Ser Ile

| 1         |           |           |            |           | 5         |           |           |            |           | 10        |           |           |           |           | 15        |  |  |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| Leu       | Leu       | Met       | Leu<br>20  | Asn       | Ala       | Val       | Gln       | Ile<br>25  | Thr       | Trp       | Asp       | Asp       | Gly<br>30 | Asp       | His       |  |  |
| Asp       | Ser       | Glu<br>35 | Gln        | His       | Val       | Val       | Gln<br>40 | Gln        | Gln       | Arg       | Gln       | Glu<br>45 | His       | Asp       | Glu       |  |  |
| Gln       | Asp<br>50 | Glu       | Leu        | Pro       | Arg       | Ala<br>55 | Ala       | Ala        | Leu       | Leu       | Gln<br>60 | Pro       | Ala       | Asp       | Gln       |  |  |
| Arg<br>65 | Gln       | Leu       | Ala        | Gln       | Gly<br>70 | His       | Gly       | Ser        | Gly       | Ala<br>75 | Pro       | Leu       | Gly       | Val       | Ala<br>80 |  |  |
| Cys       | Ala       | Ala       | Cys        | Pro<br>85 | Gly       | Pro       | Pro       | Cys        | Pro<br>90 | Arg       | Gln       | Arg       | Pro       | His<br>95 | Arg       |  |  |
| Ser       | Gly       | Leu       | Arg<br>100 | Gln       | Ser       | Gly       | Arg       | Glu<br>105 | Phe       |           |           |           |           |           |           |  |  |

<210> 585  
 <211> 409  
 <212> PRT  
 <213> homo sapiens

<400> 585

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Lys<br>1   | Ser        | Arg        | Leu        | Ser<br>5   | Val        | Thr        | Leu        | Met        | Pro<br>10  | Val        | Gln        | Leu        | Ser        | Glu<br>15  | His        |  |
| Pro        | Glu        | Trp        | Asn<br>20  | Glu        | Ser        | Met        | His        | Ser<br>25  | Leu        | Arg        | Ile        | Ser        | Val<br>30  | Gly        | Gly        |  |
| Leu        | Pro        | Val<br>35  | Leu        | Ala        | Ser        | Met        | Thr<br>40  | Lys        | Ala        | Ala        | Asp        | Pro<br>45  | Arg        | Phe        | Arg        |  |
| Pro        | Arg<br>50  | Trp        | Lys        | Val        | Ile        | Leu<br>55  | Thr        | Phe        | Phe        | Val        | Gly<br>60  | Ala        | Ala        | Ile        | Leu        |  |
| Trp<br>65  | Leu        | Leu        | Cys        | Ser        | His<br>70  | Arg        | Pro        | Ala        | Pro        | Gly<br>75  | Arg        | Pro        | Pro        | Thr        | His<br>80  |  |
| Asn        | Ala        | His        | Asn        | Trp<br>85  | Arg        | Leu        | Gly        | Gln        | Ala<br>90  | Pro        | Ala        | Asn        | Trp        | Tyr<br>95  | Asn        |  |
| Asp        | Thr        | Tyr        | Pro<br>100 | Leu        | Ser        | Pro        | Pro        | Gln<br>105 | Arg        | Thr        | Pro        | Ala        | Gly<br>110 | Ile        | Arg        |  |
| Tyr        | Arg        | Ile<br>115 | Ala        | Val        | Ile        | Ala        | Asp<br>120 | Leu        | Asp        | Thr        | Glu        | Pro<br>125 | Thr        | Ala        | Gln        |  |
| Asp        | Glu<br>130 | Asn        | Thr        | Trp        | Arg        | Ser<br>135 | Asp        | Leu        | Lys        | Lys        | Gly<br>140 | Tyr        | Leu        | Thr        | Leu        |  |
| Ser<br>145 | Asp        | Ser        | Gly        | Asp        | Lys<br>150 | Val        | Ala        | Val        | Glu        | Trp<br>155 | Asp        | Lys        | Asp        | His        | Gly<br>160 |  |
| Val        | Leu        | Glu        | Ser        | His<br>165 | Leu        | Ala        | Glu        | Lys        | Gly<br>170 | Arg        | Gly        | Met        | Glu        | Leu<br>175 | Ser        |  |
| Asp        | Leu        | Ile        | Val<br>180 | Phe        | Asn        | Gly        | Lys        | Leu<br>185 | Tyr        | Ser        | Val        | Asp        | Asp<br>190 | Arg        | Thr        |  |

09673395-122700

00222T"56EE/960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gly        | Val        | Val<br>195 | Tyr        | Gln        | Ile        | Glu        | Gly<br>200 | Ser        | Lys        | Ala        | Val        | Pro<br>205 | Trp        | Val        | Ile        |
| Leu        | Ser<br>210 | Asp        | Gly        | Asp        | Gly        | Thr<br>215 | Val        | Glu        | Lys        | Gly        | Phe<br>220 | Lys        | Ala        | Glu        | Trp        |
| Leu<br>225 | Ala        | Val        | Lys        | Asp        | Glu<br>230 | Arg        | Leu        | Tyr        | Val        | Gly<br>235 | Gly        | Leu        | Gly        | Lys        | Glu<br>240 |
| Trp        | Thr        | Thr        | Thr        | Thr<br>245 | Gly        | Asp        | Val        | Val        | Asn<br>250 | Glu        | Asn        | Pro        | Glu        | Trp<br>255 | Val        |
| Lys        | Val        | Val        | Gly<br>260 | Tyr        | Lys        | Gly        | Ser        | Val<br>265 | Asp        | His        | Glu        | Asn        | Trp<br>270 | Val        | Ser        |
| Asn        | Tyr        | Asn<br>275 | Ala        | Leu        | Arg        | Ala        | Ala<br>280 | Ala        | Gly        | Ile        | Gln        | Pro<br>285 | Pro        | Ala        | Asn        |
| Leu        | Ile<br>290 | His        | Glu        | Ser        | Ala        | Cys<br>295 | Trp        | Ser        | Asp        | Thr        | Leu<br>300 | Gln        | Arg        | Trp        | Phe        |
| Phe<br>305 | Leu        | Pro        | Arg        | Arg        | Ala<br>310 | Ser        | Gln        | Glu        | Arg        | Tyr<br>315 | Ser        | Glu        | Lys        | Asp        | Asp<br>320 |
| Glu        | Arg        | Lys        | Gly        | Ala<br>325 | Asn        | Leu        | Leu        | Leu        | Ser<br>330 | Ala        | Ser        | Pro        | Asp        | Phe<br>335 | Gly        |
| Asp        | Ile        | Ala        | Val<br>340 | Ser        | His        | Val        | Gly        | Ala<br>345 | Val        | Val        | Pro        | Thr        | His<br>350 | Gly        | Phe        |
| Ser        | Ser        | Phe<br>355 | Lys        | Phe        | Ile        | Pro        | Asn<br>360 | Thr        | Asp        | Asp        | Gln        | Ile<br>365 | Ile        | Val        | Ala        |
| Leu        | Lys<br>370 | Ser        | Glu        | Glu        | Asp        | Ser<br>375 | Gly        | Arg        | Val        | Ala        | Ser<br>380 | Tyr        | Ile        | Met        | Ala        |
| Phe<br>385 | Thr        | Leu        | Asp        | Gly        | Arg<br>390 | Phe        | Leu        | Leu        | Pro        | Glu<br>395 | Thr        | Lys        | Ile        | Gly        | Ser<br>400 |
| Val        | Lys        | Tyr        | Glu        | Gly<br>405 | Ile        | Glu        | Phe        | Ile        |            |            |            |            |            |            |            |

<210> 586  
 <211> 249  
 <212> PRT  
 <213> homo sapiens

<400> 586

|           |     |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Lys<br>1  | Leu | Ser       | Pro       | Asp<br>5 | Gly       | Leu       | Ala       | Gln       | Cys<br>10 | Phe       | Arg       | Phe       | Glu       | Leu<br>15 | Asn       |
| Glu       | Leu | Asp       | Ala<br>20 | Phe      | Val       | Phe       | His       | Ala<br>25 | Ser       | Asp       | Leu       | Gly       | Leu<br>30 | Arg       | Gln       |
| Gln       | Glu | Ala<br>35 | Pro       | Val      | Gln       | Arg       | Glu<br>40 | Gly       | His       | Asp       | Val       | Gly<br>45 | Gly       | Asp       | Ser       |
| Ala<br>50 | Ala | Val       | Leu       | Leu      | Gly       | Phe<br>55 | Glu       | Gly       | His       | Asn       | Asp<br>60 | Leu       | Val       | Val       | Gly       |
| Val<br>65 | Gly | Asp       | Glu       | Leu      | Glu<br>70 | Gly       | Arg       | Glu       | Ala       | Val<br>75 | Ser       | Gly       | Asp       | His       | Arg<br>80 |



00422T 555E4960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Pro        | Asp        | Val        | Ala        | His<br>85  | Ser        | Asp        | Val        | Ala        | Glu<br>90  | Val        | Arg        | Gly        | Gly        | Ala<br>95  | Gln        |
| Gln        | Gln        | Val        | Gly<br>100 | Ala        | Leu        | Ala        | Leu        | Val<br>105 | Val        | Leu        | Leu        | Ala        | Val<br>110 | Ala        | Leu        |
| Leu        | Ala        | Gly<br>115 | Ala        | Ala        | Arg        | Gln        | Glu<br>120 | Glu        | Pro        | Ala        | Leu        | Gln<br>125 | Arg        | Val        | Thr        |
| Pro        | Ala<br>130 | Gly        | Arg        | Leu        | Met        | Asp<br>135 | Glu        | Val        | Ser        | Trp        | Arg<br>140 | Leu        | Asp        | Ala        | Gly        |
| Ser<br>145 | Ser        | Pro        | Gln        | Gly        | Val<br>150 | Val        | Val        | Gly        | His        | Pro<br>155 | Val        | Leu        | Val        | Val        | His<br>160 |
| Ala        | Ala        | Leu        | Val        | Ala<br>165 | His        | His        | Leu        | His        | Pro<br>170 | Leu        | Arg        | Val        | Leu        | Val<br>175 | His        |
| His        | Ile        | Thr        | Arg<br>180 | Ser        | Gly        | Arg        | Pro        | Leu<br>185 | Leu        | Ala        | Gln        | Ala        | Ala<br>190 | His        | Val        |
| Gln        | Thr        | Leu<br>195 | Val        | Leu        | His        | Cys        | Gln<br>200 | Pro        | Phe        | Gly        | Leu        | Glu<br>205 | Ala        | Phe        | Leu        |
| His        | Gly<br>210 | Ala        | Val        | Ala        | Val        | Gly<br>215 | Gln        | Asn        | His        | Pro        | Gly<br>220 | His        | Gly        | Phe        | Ala        |
| Ala<br>225 | Phe        | Asp        | Leu        | Val        | Asp<br>230 | Asp        | Pro        | Arg        | Pro        | Val<br>235 | Ile        | His        | Gly        | Val        | Glu<br>240 |
| Phe        | Pro        | Ile        | Glu        | Asn<br>245 | Asn        | Gln        | Val        | Gly        |            |            |            |            |            |            |            |

<210> 587  
 <211> 157  
 <212> PRT  
 <213> homo sapiens  
 <400> 587

|           |           |           |            |           |           |           |           |            |           |           |           |           |            |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Leu<br>1  | Glu       | Phe       | Phe        | Ile<br>5  | Pro       | Cys       | Leu       | Gly        | Ser<br>10 | Val       | Asn       | Glu       | Ala        | Cys<br>15 | Leu       |
| Phe       | Pro       | Gly       | Val<br>20  | Ser       | Phe       | His       | Gly       | Leu<br>25  | Tyr       | Phe       | Ser       | Ser       | Ser<br>30  | Ser       | Gly       |
| Ser       | Phe       | Ala<br>35 | Gly        | Ser       | Ser       | Leu       | Trp<br>40 | Lys        | Leu       | His       | Glu       | Arg<br>45 | Trp        | Leu       | Gly       |
| Leu       | Gly<br>50 | Phe       | Ala        | Gly       | Val       | Tyr<br>55 | Ser       | Arg        | Val       | Lys       | Ala<br>60 | Glu       | Trp        | Asp       | Leu       |
| Arg<br>65 | Pro       | Arg       | Leu        | Gly       | Thr<br>70 | Thr       | Gln       | Ala        | Glu       | Lys<br>75 | Gly       | Arg       | Phe        | His       | His<br>80 |
| Ser       | Gln       | Cys       | Pro        | Pro<br>85 | His       | Ser       | Asn       | Tyr        | Leu<br>90 | Thr       | Pro       | Thr       | Pro        | Thr<br>95 | Leu       |
| Thr       | Pro       | Thr       | Pro<br>100 | Pro       | Arg       | Asp       | Arg       | Gln<br>105 | Gly       | Cys       | His       | Gly       | Gly<br>110 | Pro       | Glu       |
| Gly       | Ala       | Gly       | Ser        | Gly       | Cys       | Pro       | Cys       | Ala        | Gly       | Pro       | Ser       | Gln       | Thr        | Ser       | Pro       |

|            |            |     |     |     |            |            |     |     |     |            |            |     |     |     |     |  |  |
|------------|------------|-----|-----|-----|------------|------------|-----|-----|-----|------------|------------|-----|-----|-----|-----|--|--|
|            |            | 115 |     |     |            |            | 120 |     |     |            |            | 125 |     |     |     |  |  |
| Pro        | Leu<br>130 | Lys | Leu | Lys | His        | Ser<br>135 | Cys | Glu | Glu | Gly        | Ser<br>140 | Glu | Glu | Gly | Pro |  |  |
| Leu<br>145 | Ser        | His | Gly | Cys | Leu<br>150 | Phe        | Pro | Pro | Leu | Cys<br>155 | His        | Arg |     |     |     |  |  |

```
<210> 588
<211> 144
<212> PRT
<213> homo sapiens
```

<400> 588

|           |            |            |            |           |           |            |            |            |           |           |            |            |            |           |           |
|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|
| Asn<br>1  | Thr        | Met        | Ala        | Val<br>5  | Ala       | Ala        | Val        | Lys        | Trp<br>10 | Val       | Met        | Ser        | Lys        | Arg<br>15 | Thr       |
| Ile       | Leu        | Lys        | His<br>20  | Leu       | Phe       | Pro        | Val        | Gln<br>25  | Asn       | Gly       | Ala        | Leu        | Tyr<br>30  | Cys       | Val       |
| Cys       | His        | Lys<br>35  | Ser        | Thr       | Tyr       | Ser        | Pro<br>40  | Leu        | Pro       | Asp       | Asp        | Tyr<br>45  | Asn        | Cys       | Asn       |
| Val       | Glu<br>50  | Leu        | Ala        | Leu       | Thr       | Ser<br>55  | Asp        | Gly        | Arg       | Thr       | Ile<br>60  | Val        | Cys        | Tyr       | His       |
| Pro<br>65 | Ser        | Val        | Asp        | Ile       | Pro<br>70 | Tyr        | Glu        | His        | Thr       | Lys<br>75 | Pro        | Ile        | Pro        | Arg       | Pro<br>80 |
| Asp       | Pro        | Val        | His        | Asn<br>85 | Asn       | Glu        | Glu        | Thr        | His<br>90 | Asp       | Gln        | Val        | Leu        | Lys<br>95 | Thr       |
| Arg       | Leu        | Glu        | Glu<br>100 | Lys       | Val       | Glu        | His        | Leu<br>105 | Glu       | Glu       | Gly        | Pro        | Met<br>110 | Ile       | Glu       |
| Gln       | Leu        | Ser<br>115 | Lys        | Met       | Phe       | Phe        | Thr<br>120 | Thr        | Lys       | His       | Arg        | Trp<br>125 | Tyr        | Pro       | His       |
| Gly       | Arg<br>130 | Tyr        | His        | Arg       | Cys       | Arg<br>135 | Lys        | Asn        | Leu       | Asn       | Pro<br>140 | Pro        | Lys        | Asp       | Arg       |

```
<210> 589
<211> 128
<212> PRT
<213> homo sapiens
```

<400> 589

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ile<br>1  | His       | Gln       | Thr       | Ala<br>5 | Phe       | Ser       | Gln       | Met       | Ala<br>10 | Asn       | Glu       | Ala       | His       | Phe<br>15 | Ser       |
| Leu       | Ile       | Pro       | Pro<br>20 | Gly      | Thr       | Ser       | Ala       | Ser<br>25 | Ser       | Val       | Phe       | Trp       | Arg<br>30 | Ile       | Gln       |
| Ile       | Leu       | Thr<br>35 | Thr       | Ser      | Val       | Ile       | Pro<br>40 | Ser       | Met       | Arg       | Ile       | Pro<br>45 | Thr       | Val       | Leu       |
| Ser       | Ser<br>50 | Lys       | Glu       | His      | Phe       | Ala<br>55 | Lys       | Leu       | Phe       | Tyr       | His<br>60 | Arg       | Ser       | Phe       | Leu       |
| Lys<br>65 | Val       | Phe       | Asn       | Phe      | Phe<br>70 | Phe       | Gln       | Ser       | Gly       | Phe<br>75 | Gln       | His       | Leu       | Ile       | Met<br>80 |

|     |     |            |            |           |     |     |            |            |           |     |     |            |            |           |     |
|-----|-----|------------|------------|-----------|-----|-----|------------|------------|-----------|-----|-----|------------|------------|-----------|-----|
| Cys | Phe | Phe        | Ile        | Ile<br>85 | Met | His | Arg        | Ile        | Trp<br>90 | Pro | Arg | Asp        | Arg        | Phe<br>95 | Cys |
| Val | Phe | Ile        | Trp<br>100 | Asn       | Val | His | Arg        | Arg<br>105 | Val       | Val | Ala | Tyr        | Tyr<br>110 | Cys       | Pro |
| Ala | Ile | Arg<br>115 | Ser        | Gln       | Ser | Lys | Leu<br>120 | Tyr        | Val       | Ala | Ile | Ile<br>125 | Val        | Ile       | Trp |

<210> 590  
 <211> 61  
 <212> PRT  
 <213> homo sapiens

<400> 590

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Lys<br>1 | Leu       | Val       | Cys       | Leu<br>5 | Glu | Ala       | Asp       | Ser       | Lys<br>10 | Ser | Ser       | Phe       | Ser       | Ser<br>15 | Glu |
| His      | Leu       | Phe       | Ser<br>20 | Tyr      | His | Leu       | Ile       | Ser<br>25 | Ile       | Leu | Lys       | His       | His<br>30 | Gly       | Cys |
| Ser      | Cys       | Ser<br>35 | Lys       | Met      | Gly | Asp       | Val<br>40 | Lys       | Glu       | Asn | Tyr       | Leu<br>45 | Glu       | Thr       | Phe |
| Ile      | Ser<br>50 | Ser       | Pro       | Lys      | Trp | Ser<br>55 | Phe       | Ile       | Leu       | Cys | Leu<br>60 | Ser       |           |           |     |

<210> 591  
 <211> 173  
 <212> PRT  
 <213> homo sapiens

<400> 591

|           |            |            |            |           |           |            |            |            |           |           |            |            |            |           |           |
|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|
| Ala<br>1  | Gln        | Glu        | Ser        | Pro<br>5  | Trp       | Gln        | Leu        | Cys        | Arg<br>10 | Gly       | Ala        | Arg        | Thr        | Ser<br>15 | Lys       |
| Arg       | Lys        | Leu        | Pro<br>20  | Lys       | Leu       | Gly        | Met        | Glu<br>25  | Gln       | His       | Cys        | Asn        | Glu<br>30  | Met       | Cys       |
| Pro       | Pro        | Ser<br>35  | Ser        | Leu       | Phe       | Leu        | Pro<br>40  | Gly        | Ala       | Tyr       | Lys        | Ala<br>45  | Gln        | Met       | Tyr       |
| Ser       | Asp<br>50  | Val        | Trp        | Thr       | Asn       | Thr<br>55  | Lys        | Lys        | Lys       | Lys       | Lys<br>60  | Lys        | Lys        | Lys       | Lys       |
| Lys<br>65 | Ala        | Phe        | Leu        | Ser       | His<br>70 | Arg        | His        | Lys        | Thr       | Gln<br>75 | Ile        | Ile        | Tyr        | Cys       | Tyr<br>80 |
| Glu       | Ala        | Leu        | Phe        | Thr<br>85 | Asn       | Gly        | Gln        | Phe        | Leu<br>90 | His       | Phe        | Ile        | Ala        | Ala<br>95 | Cys       |
| Glu       | Arg        | Leu        | Pro<br>100 | Asp       | Gly       | Arg        | Pro        | Ile<br>105 | Ser       | Leu       | Val        | Leu        | Gln<br>110 | Thr       | Ser       |
| Ser       | Gln        | Ala<br>115 | Ala        | Phe       | Tyr       | Gln        | Lys<br>120 | Gly        | Glu       | Asn       | Ser        | Cys<br>125 | Leu        | Ser       | Phe       |
| Leu       | Lys<br>130 | Asn        | Ala        | Phe       | Leu       | Tyr<br>135 | Leu        | Ser        | Ile       | Arg       | His<br>140 | Tyr        | Thr        | Ser       | Glu       |

|            |     |     |     |            |            |     |     |     |            |            |     |     |     |     |            |
|------------|-----|-----|-----|------------|------------|-----|-----|-----|------------|------------|-----|-----|-----|-----|------------|
| Leu<br>145 | Tyr | Lys | Arg | Pro        | Gly<br>150 | Gly | Thr | Met | Ser        | Leu<br>155 | Val | Asp | Thr | Phe | His<br>160 |
| Cys        | Ser | Val | Ala | Pro<br>165 | Phe        | Leu | Ala | Trp | Glu<br>170 | Ala        | Ser | Ala |     |     |            |

```
<210> 592
<211> 105
<212> PRT
<213> homo sapiens
```

<400> 592

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Thr<br>1  | Cys       | Glu       | Pro        | Phe<br>5  | Arg       | Asn       | Pro       | Gln        | Val<br>10 | Gly       | Lys       | Asp       | Pro       | Thr<br>15 | Pro       |
| Ser       | Leu       | Arg       | Ile<br>20  | Ile       | Cys       | Leu       | Ala       | Ile<br>25  | Thr       | Gly       | Ser       | Trp       | Lys<br>30 | Cys       | Phe       |
| Leu       | Gly       | Cys<br>35 | Val        | Lys       | Ile       | Asn       | Gln<br>40 | Gly        | Gly       | Met       | Lys       | His<br>45 | Ile       | Phe       | Leu       |
| Ala       | Thr<br>50 | Lys       | Leu        | Glu       | Phe       | Leu<br>55 | Arg       | Glu        | Gln       | Met       | Gln<br>60 | Arg       | Asp       | Leu       | Leu       |
| Leu<br>65 | Leu       | Ala       | Arg        | Leu       | Gln<br>70 | Gly       | Pro       | Leu        | Trp       | Ser<br>75 | His       | Thr       | Glu       | Ala       | Val<br>80 |
| Thr       | Gly       | His       | Lys        | Pro<br>85 | Arg       | Arg       | Ala       | Arg        | Gly<br>90 | Ser       | Cys       | Ala       | Glu       | Ala<br>95 | Pro       |
| Gly       | Pro       | Leu       | Ser<br>100 | Gly       | Ser       | Phe       | Pro       | Ser<br>105 |           |           |           |           |           |           |           |

```
<210> 593
<211> 105
<212> PRT
<213> homo sapiens
```

<400> 593

|           |           |           |            |           |           |           |           |            |           |           |           |           |           |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Thr<br>1  | Cys       | Glu       | Pro        | Phe<br>5  | Arg       | Asn       | Pro       | Gln        | Val<br>10 | Gly       | Lys       | Asp       | Pro       | Thr<br>15 | Pro       |
| Ser       | Leu       | Arg       | Ile<br>20  | Ile       | Cys       | Leu       | Ala       | Ile<br>25  | Thr       | Gly       | Ser       | Trp       | Lys<br>30 | Cys       | Phe       |
| Leu       | Gly       | Cys<br>35 | Val        | Lys       | Ile       | Asn       | Gln<br>40 | Gly        | Gly       | Met       | Lys       | His<br>45 | Ile       | Phe       | Leu       |
| Ala       | Thr<br>50 | Lys       | Leu        | Glu       | Phe       | Leu<br>55 | Arg       | Glu        | Gln       | Met       | Gln<br>60 | Arg       | Asp       | Leu       | Leu       |
| Leu<br>65 | Leu       | Ala       | Arg        | Leu       | Gln<br>70 | Gly       | Pro       | Leu        | Trp       | Ser<br>75 | His       | Thr       | Glu       | Ala       | Val<br>80 |
| Thr       | Gly       | His       | Lys        | Pro<br>85 | Arg       | Arg       | Ala       | Arg        | Gly<br>90 | Ser       | Cys       | Ala       | Glu       | Ala<br>95 | Pro       |
| Gly       | Pro       | Leu       | Ser<br>100 | Gly       | Ser       | Phe       | Pro       | Ser<br>105 |           |           |           |           |           |           |           |

<210> 594

[illegible]



|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Gly | Arg | Gly | Thr | Ala | Asp | Trp | Gly | Val | Arg | Arg | Ser | Gly | Val |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Met | Gly | Leu | Gly | Val | Ala | Asn | Arg | Phe | Arg | Pro | Asp | Tyr | Ser | Ala |     |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |

<210> 596  
 <211> 123  
 <212> PRT  
 <213> homo sapiens

<400> 596

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Thr | Ser | Gln | Pro | Phe | Lys | Val | Thr | Val | Ser | Ser | Ser | Asn | Ser | Arg |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Phe | Phe | Gln | Leu | Glu | Asn | Arg | Lys | Ile | Cys | Leu | Asp | Pro | Asp | Phe | Val |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ser | Gly | Glu | Ala | Ala | Pro | Ala | Asp | Pro | His | Arg | Leu | Arg | Val | Ala | His |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ile | Asp | Leu | Glu | Glu | Val | Ala | Gly | Gly | Ser | Val | Gly | Val | Ile | Gln | Val |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Leu | Arg | Leu | Gly | Asp | Gln | Pro | Pro | Gly | Val | Ser | His | Gly | Leu | Arg | His |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Phe | Ala | Val | Ala | Ala | Ala | Ala | Ala | Ala | Gly | Ser | Leu | Arg | Pro | Leu | Arg |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Val | Gln | Pro | Pro | Pro | Pro | Ala | Leu | Leu | Pro | Ala | Val | Gly | Thr | Arg | Gly |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Ser | Arg | Ala | Ala | Val | Ala | Lys | Arg | Thr | Ser | Thr |     |     |     |     |     |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     |     |     |     |     |

<210> 597  
 <211> 262  
 <212> PRT  
 <213> homo sapiens

<400> 597

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Cys | Gly | Asp | Val | Glu | Gln | Lys | Ile | Gln | Phe | Lys | Arg | Glu | Thr | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser | Leu | Lys | Leu | Leu | Pro | His | Gln | Pro | Arg | Ile | Val | Glu | Met | Lys | Lys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gly | Ser | Asn | Gly | Tyr | Gly | Phe | Tyr | Leu | Arg | Ala | Gly | Ser | Glu | Gln | Lys |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Gly | Gln | Ile | Ile | Lys | Asp | Ile | Asp | Ser | Gly | Ser | Pro | Ala | Glu | Glu | Ala |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Gly | Leu | Lys | Asn | Asn | Asp | Leu | Val | Val | Ala | Val | Asn | Gly | Glu | Ser | Val |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Glu | Thr | Leu | Asp | His | Asp | Ser | Val | Val | Glu | Met | Ile | Arg | Lys | Gly | Gly |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |

00227 5557960

004221" 56222950

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Asp        | Gln        | Thr        | Ser<br>100 | Leu        | Leu        | Val        | Val        | Asp<br>105 | Lys        | Glu        | Thr        | Asp        | Asn<br>110 | Met        | Tyr        |
| Arg        | Leu        | Ala<br>115 | His        | Phe        | Ser        | Pro        | Phe<br>120 | Leu        | Tyr        | Tyr        | Gln        | Ser<br>125 | Gln        | Glu        | Leu        |
| Pro        | Asn<br>130 | Gly        | Ser        | Val        | Lys        | Glu<br>135 | Ala        | Pro        | Ala        | Pro        | Thr<br>140 | Pro        | Thr        | Ser        | Leu        |
| Glu<br>145 | Val        | Ser        | Ser        | Pro        | Pro<br>150 | Asp        | Thr        | Thr        | Glu        | Glu<br>155 | Val        | Asp        | His        | Lys        | Pro<br>160 |
| Lys        | Leu        | Cys        | Arg        | Leu<br>165 | Ala        | Lys        | Gly        | Glu        | Asn<br>170 | Gly        | Tyr        | Gly        | Phe        | His<br>175 | Leu        |
| Asn        | Ala        | Ile        | Arg<br>180 | Gly        | Leu        | Pro        | Gly        | Ser<br>185 | Phe        | Ile        | Lys        | Glu        | Val<br>190 | Gln        | Lys        |
| Gly        | Gly        | Pro<br>195 | Ala        | Asp        | Leu        | Ala        | Gly<br>200 | Leu        | Glu        | Asp        | Glu        | Asp<br>205 | Val        | Ile        | Ile        |
| Glu        | Val<br>210 | Asn        | Gly        | Val        | Asn        | Val<br>215 | Leu        | Asp        | Glu        | Pro        | Tyr<br>220 | Glu        | Lys        | Val        | Val        |
| Asp<br>225 | Arg        | Ile        | Gln        | Ser        | Ser<br>230 | Gly        | Lys        | Asn        | Val        | Thr<br>235 | Leu        | Leu        | Val        | Cys        | Gly<br>240 |
| Lys        | Lys        | Ala        | Tyr        | Asp<br>245 | Tyr        | Phe        | Gln        | Ala        | Lys<br>250 | Lys        | Ile        | Pro        | Ile        | Val<br>255 | Pro        |
| Ser        | Leu        | Ala        | Asp<br>260 | Ala        | Ser        |            |            |            |            |            |            |            |            |            |            |

<210> 598  
 <211> 65  
 <212> PRT  
 <213> homo sapiens

<400> 598

|           |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Lys<br>1  | Gly       | Trp       | Arg       | Ser<br>5 | Asp | Phe       | Thr       | Val       | Gly<br>10 | Gly | Arg       | Gln       | Arg       | Asp<br>15 | Gly |
| Gln       | His       | Val       | Gln<br>20 | Thr      | Gly | Ser       | Phe       | Phe<br>25 | Ser       | Ile | Ser       | Leu       | Leu<br>30 | Ser       | Lys |
| Ser       | Arg       | Thr<br>35 | Ala       | Gln      | Trp | Leu       | Cys<br>40 | Gln       | Gly       | Gly | Ser       | Ser<br>45 | Ser       | Tyr       | Ser |
| His       | Phe<br>50 | Ser       | Gly       | Ser      | Leu | Lys<br>55 | Ser       | Thr       | Arg       | Tyr | Tyr<br>60 | Arg       | Gly       | Ser       | Arg |
| Ser<br>65 |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |

<210> 599  
 <211> 63  
 <212> PRT  
 <213> homo sapiens

<400> 599

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Asp | Thr | Ile | Gln | Lys | Arg | Asn | Ser | Gln | Phe | Glu | Thr | Val | Thr |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

| 1   |     |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Pro | Pro | Ala | Pro | Asn | Cys | Gly | Asp | Glu | Glu | Arg | Lys | Gln | Trp | Leu | Trp |  |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |  |
| Phe | Leu | Ser | Glu | Gly | Arg | Leu | Arg | Thr | Glu | Arg | Ser | Asn | His | Gln | Gly |  |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |  |
| His | Arg | Phe | Trp | Lys | Ser | Ser | Arg | Gly | Gly | Trp | Leu | Glu | Glu | Gln |     |  |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |  |

<210> 600  
 <211> 336  
 <212> PRT  
 <213> homo sapiens

<400> 600

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Lys | Leu | Asn | Phe | Asn | Thr | Met | Arg | Cys | Cys | His | Ile | Cys | Lys | Leu | Pro |  |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |  |
| Gly | Arg | Val | Met | Gly | Ile | Arg | Val | Leu | Arg | Leu | Ser | Leu | Val | Val | Ile |  |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |  |
| Leu | Val | Leu | Leu | Leu | Val | Ala | Gly | Ala | Leu | Thr | Ala | Leu | Leu | Pro | Ser |  |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |  |
| Val | Lys | Glu | Asp | Lys | Met | Leu | Met | Leu | Arg | Arg | Glu | Ile | Lys | Ser | Gln |  |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |  |
| Gly | Lys | Ser | Thr | Met | Asp | Ser | Phe | Thr | Leu | Ile | Met | Gln | Thr | Tyr | Asn |  |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |  |
| Arg | Thr | Asp | Leu | Leu | Leu | Lys | Leu | Leu | Asn | His | Tyr | Gln | Ala | Val | Pro |  |  |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |  |
| Asn | Leu | His | Lys | Val | Ile | Val | Val | Trp | Asn | Asn | Ile | Gly | Glu | Lys | Ala |  |  |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |  |
| Pro | Asp | Glu | Leu | Trp | Asn | Ser | Leu | Gly | Pro | His | Pro | Ile | Pro | Val | Ile |  |  |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |  |
| Phe | Lys | Gln | Gln | Thr | Ala | Asn | Arg | Met | Arg | Asn | Arg | Leu | Gln | Val | Phe |  |  |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |  |  |
| Pro | Glu | Leu | Glu | Thr | Asn | Ala | Val | Leu | Met | Val | Asp | Asp | Asp | Thr | Leu |  |  |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |  |  |
| Ile | Ser | Thr | Pro | Asp | Leu | Val | Phe | Ala | Phe | Ser | Val | Trp | Gln | Gln | Phe |  |  |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |  |  |
| Pro | Asp | Gln | Ile | Val | Gly | Phe | Val | Pro | Arg | Lys | His | Val | Ser | Thr | Ser |  |  |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |  |  |
| Ser | Gly | Ile | Tyr | Ser | Tyr | Gly | Ser | Phe | Glu | Met | Gln | Ala | Pro | Gly | Ser |  |  |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |  |  |
| Gly | Asn | Gly | Asp | Gln | Tyr | Ser | Met | Val | Leu | Ile | Gly | Ala | Ser | Phe | Phe |  |  |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |  |  |
| Asn | Ser | Lys | Tyr | Leu | Glu | Leu | Phe | Gln | Arg | Gln | Pro | Ala | Ala | Val | His |  |  |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |  |  |

002227"5652960



|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ala        | Leu        | Ile        | Asp        | Asp<br>245 | Thr        | Gln        | Asn        | Cys        | Asp<br>250 | Asp        | Ile        | Ala        | Met        | Asn<br>255 | Phe        |
| Ile        | Ile        | Ala        | Lys<br>260 | His        | Ile        | Gly        | Lys        | Thr<br>265 | Ser        | Gly        | Ile        | Phe        | Val<br>270 | Lys        | Pro        |
| Val        | Asn        | Met<br>275 | Asp        | Asn        | Leu        | Glu        | Lys<br>280 | Glu        | Thr        | Asn        | Ser        | Gly<br>285 | Tyr        | Ser        | Gly        |
| Met        | Trp<br>290 | His        | Arg        | Ala        | Glu        | His<br>295 | Ala        | Leu        | Gln        | Arg        | Ser<br>300 | Tyr        | Cys        | Ile        | Asn        |
| Lys<br>305 | Leu        | Val        | Asn        | Ile        | Tyr<br>310 | Asp        | Ser        | Met        | Pro        | Leu<br>315 | Arg        | Tyr        | Ser        | Asn        | Ile<br>320 |
| Met        | Ile        | Ser        | Gln        | Phe<br>325 | Gly        | Phe        | Pro        | Tyr        | Ala<br>330 | Asn        | Tyr        | Lys        | Arg        | Lys<br>335 | Ile        |

<210> 601  
 <211> 101  
 <212> PRT  
 <213> homo sapiens

<400> 601

|           |     |           |            |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| His<br>1  | Ala | Leu       | Lys        | Ile<br>5  | Leu       | Gln       | His       | Tyr       | Asp<br>10 | Phe       | Pro       | Val       | Trp       | Phe<br>15 | Ser       |
| Ile       | Cys | Gln       | Leu<br>20  | Gln       | Lys       | Lys       | Asn       | Ile<br>25 | Lys       | Val       | Lys       | Gln       | Thr<br>30 | Lys       | Thr       |
| Asn       | Leu | Lys<br>35 | Thr        | Ala       | Trp       | His       | Leu<br>40 | Ser       | Ser       | Phe       | Ser       | Met<br>45 | Leu       | Cys       | Ile       |
| Phe<br>50 | Leu | Ser       | Asn        | Ile       | Met       | Asn<br>55 | Phe       | Ile       | Tyr       | Ser       | Arg<br>60 | Ser       | Leu       | Tyr       | Asn       |
| Arg<br>65 | Lys | Lys       | Ser        | Ala       | Val<br>70 | Leu       | Leu       | Gly       | Tyr       | Lys<br>75 | Ile       | His       | Ile       | Thr       | Phe<br>80 |
| Glu       | Ser | Gln       | Glu        | Val<br>85 | Gly       | Leu       | Ile       | Gln       | Leu<br>90 | Gly       | Leu       | Leu       | Met       | Lys<br>95 | Ser       |
| Phe       | His | Pro       | Gly<br>100 | Ile       |           |           |           |           |           |           |           |           |           |           |           |

<210> 602  
 <211> 90  
 <212> PRT  
 <213> homo sapiens

<400> 602

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Phe<br>1 | Lys | Ser       | Phe       | Asn<br>5 | Lys | Arg | Ser       | Val       | Leu<br>10 | Leu | Tyr | Val       | Cys       | Ile<br>15 | Met |
| Arg      | Val | Lys       | Glu<br>20 | Ser      | Met | Val | Asp       | Leu<br>25 | Pro       | Trp | Asp | Phe       | Ile<br>30 | Ser       | Leu |
| Arg      | Asn | Met<br>35 | Ser       | Ile      | Leu | Ser | Ser<br>40 | Leu       | Thr       | Leu | Gly | Ser<br>45 | Lys       | Ala       | Val |
| Lys      | Ala | Pro       | Ala       | Thr      | Ser | Asn | Asn       | Thr       | Arg       | Met | Thr | Thr       | Lys       | Asp       | Asn |

002221 5622960

00673305-122700

|           |     |     |     |           |           |     |     |     |           |           |     |     |     |     |           |
|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----|-----------|
| 50        |     |     |     |           | 55        |     |     |     |           | 60        |     |     |     |     |           |
| Arg<br>65 | Ser | Thr | Arg | Ile       | Pro<br>70 | Ile | Thr | Leu | Pro       | Gly<br>75 | Ser | Leu | Gln | Met | Trp<br>80 |
| Gln       | His | Leu | Ile | Val<br>85 | Leu       | Lys | Phe | Asn | Phe<br>90 |           |     |     |     |     |           |

<210> 603  
 <211> 163  
 <212> PRT  
 <213> homo sapiens

<400> 603

|            |            |            |            |           |            |            |            |            |           |            |            |            |            |           |            |
|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|
| Ile<br>1   | Tyr        | Gly        | Val        | Ser<br>5  | Phe        | Leu        | Ile        | Phe        | Asn<br>10 | Ile        | Lys        | Asn        | Ile        | Tyr<br>15 | Val        |
| Ser        | Val        | Ile        | Pro<br>20  | Cys       | Gln        | Gly        | Cys        | Leu<br>25  | Leu       | Val        | Cys        | Leu        | Arg<br>30  | Phe       | Cys        |
| Phe        | Ile        | Phe<br>35  | Ile        | His       | Val        | Val        | Val<br>40  | Ile        | Phe       | Ser        | Ser        | Gln<br>45  | Phe        | Leu       | Leu        |
| Val        | Ser<br>50  | Pro        | Phe        | Pro       | Gly        | Ser<br>55  | Phe        | Leu        | Leu       | Leu        | Leu<br>60  | Leu        | Ser        | Val       | Gly        |
| Asp<br>65  | Asp        | Lys        | Leu        | Val       | Ser<br>70  | Leu        | Arg        | Ala        | Leu       | His<br>75  | Leu        | Trp        | Ile        | Phe       | Leu<br>80  |
| Xxx        | Ser        | Leu        | Thr        | Gly<br>85 | Gln        | Pro        | Ala        | Pro        | Val<br>90 | Gly        | Ser        | Gly        | Pro        | Val<br>95 | Leu        |
| Arg        | Leu        | Pro        | Arg<br>100 | Ser       | Leu        | Phe        | His        | Leu<br>105 | Gln       | Val        | Cys        | Leu        | Pro<br>110 | Xxx       | Pro        |
| Ala        | Pro        | Gly<br>115 | Leu        | Ala       | Pro        | Ala        | Ala<br>120 | Ala        | Cys       | Pro        | Ser        | Glu<br>125 | Ala        | Leu       | Leu        |
| Ser        | Pro<br>130 | Pro        | Gly        | Ser       | His        | Gly<br>135 | Trp        | Phe        | Pro       | Leu        | Ser<br>140 | Gln        | Leu        | Val       | Ser        |
| Leu<br>145 | Asn        | Pro        | Lys        | Pro       | Leu<br>150 | Arg        | Asn        | Trp        | Gly       | Leu<br>155 | Val        | Ser        | Gly        | Thr       | Cys<br>160 |
| Cys        | Tyr        | Gln        |            |           |            |            |            |            |           |            |            |            |            |           |            |

<210> 604  
 <211> 150  
 <212> PRT  
 <213> homo sapiens

<400> 604

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|
| Pro<br>1 | Leu | Ser       | Phe       | Leu<br>5 | Met | Tyr | Lys       | Thr       | Leu<br>10 | Leu | Ser | Gly       | Leu       | Glu<br>15 | Phe |
| Glu      | His | Leu       | Trp<br>20 | Xxx      | Phe | Ile | Tyr       | Phe<br>25 | Ala       | Xxx | Val | Cys       | Gly<br>30 | Gln       | Ser |
| Asn      | Ile | Phe<br>35 | Pro       | Lys      | Tyr | Ile | Leu<br>40 | Pro       | Arg       | Lys | Xxx | Lys<br>45 | Lys       | Gln       | Ile |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Xxx | Phe | Asp | Xxx | Lys | Xxx | Asn | Arg | Pro | Xxx | Lys | Gly | Ala | Xxx | Thr |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Trp | Ser | Arg | Ala | Trp | Xxx | Arg | Gly | Lys | Ala | Xxx | Arg | Gly | Gln | Val | Cys |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Cys | Gly | Gln | Ile | Cys | Ala | Tyr | Phe | Ile | Thr | Gly | Val | Lys | Xxx | Lys | Gln |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Ser | Xxx | Ile | Asp | Val | Xxx | Arg | Ile | Tyr | Thr | Val | Xxx | Arg | Asn | Xxx | Arg |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Xxx | Xxx | Phe | Xxx | Lys | Asn | Arg | Asn | Thr | Xxx | Trp | Xxx | Xxx | Phe | Tyr | His |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Xxx | Xxx | Tyr | Thr | Phe | Ser | Leu | Trp | Xxx | Asn | Xxx | Leu | Thr | Lys | Leu | Xxx |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Phe | Lys | Ile | Lys | Leu | Met |     |     |     |     |     |     |     |     |     |     |
| 145 |     |     |     |     | 150 |     |     |     |     |     |     |     |     |     |     |

<210> 605  
 <211> 108  
 <212> PRT  
 <213> homo sapiens

<400> 605

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asp | Phe | Lys | Xxx | Gln | Phe | Cys | Glu | Ser | Ile | Xxx | Pro | Gln | Ala | Lys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Cys | Val | Xxx | Xxx | Met | Ile | Lys | Xxx | Xxx | Pro | Xxx | Xxx | Ile | Pro | Val | Phe |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | Lys | Xxx | Val | Pro | Xxx | Ile | Ser | Xxx | His | Cys | Ile | Tyr | Pro | Xxx | Asp |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ile | Asn | Xxx | Thr | Leu | Phe | Ser | Phe | Tyr | Ser | Ser | Asn | Lys | Val | Gly | Thr |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Asp | Leu | Ser | Thr | Thr | Asn | Leu | Pro | Ser | Xxx | Cys | Leu | Ala | Ser | Xxx | Pro |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Cys | Ser | Ala | Pro | Gly | Xxx | Xxx | Pro | Leu | Xxx | Xxx | Pro | Val | Xxx | Phe | Xxx |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Val | Lys | Xxx | Pro | Asn | Leu | Leu | Leu | Ala | Phe | Ser | Trp |     |     |     |     |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     |     |     |     |

<210> 606  
 <211> 203  
 <212> PRT  
 <213> homo sapiens

<400> 606

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Ser | Ala | Leu | Val | His | Ser | Val | Arg | Pro | Asp | Leu | Cys | Ser | Asn |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Pro | Leu | Ser | Cys | Gly | Ser | Leu | Ala | Cys | Met | Ala | Tyr | Thr | Gly | Glu | Leu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Gly | Leu | Trp | Ala | Val | Gln | Thr | Gln | Gly | Ser | His | Phe | Ala | Phe | Pro | Leu |

002221" 5652960

00673395-122700

| 35  |     |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Pro | Phe | Ser | Ile | Leu | Ala | Leu | Arg | Gln | Asn | Phe | Ser | Gln | Arg |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Arg | Thr | Leu | Cys | Cys | Pro | Arg | Ser | Ala | Val | Ile | Leu | Pro | Phe | Leu | Pro |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Ser | Phe | His | Pro | Ser | Ser | Ala | Gln | Met | Lys | Ser | Ser | Arg | Asn | Ser | Ser |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Phe | Leu | Pro | Leu | Trp | Asp | Ser | Glu | Thr | Gly | Asn | Leu | Gln | Gly | Gly | Val |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Phe | Pro | Ser | Pro | Leu | Phe | Leu | Phe | Ser | Thr | Pro | Arg | Gly | Thr | Lys | Ala |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Ala | Val | Pro | Thr | Ser | Gly | Thr | Glu | Leu | His | Thr | Ile | Val | Gly | Lys | Leu |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Gln | Gly | Pro | Leu | Leu | Leu | Val | Leu | Arg | Ala | His | Leu | Cys | Tyr | Trp | Ser |
| 145 |     |     |     | 150 |     |     |     |     |     | 155 |     |     |     |     | 160 |
| Phe | Trp | Gln | Lys | Arg | Lys | Met | Ile | Glu | Pro | Arg | Val | Ala | Pro | Glu | Cys |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Ser | Ser | Leu | Thr | Val | Glu | Gly | Pro | Lys | Leu | Val | Phe | Arg | Ala | His | Pro |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Arg | Arg | Glu | Val | Ile | Arg | Cys | His | Ala | Phe | Cys |     |     |     |     |     |
|     |     | 195 |     |     |     | 200 |     |     |     |     |     |     |     |     |     |

<210> 607  
 <211> 154  
 <212> PRT  
 <213> homo sapiens

<400> 607

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Val | Arg | Gln | Lys | Glu | Trp | Cys | Leu | Leu | Trp | Ser | Phe | Pro | Phe | Pro |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Gly | Ala | Gly | Leu | Cys | Ala | Lys | Leu | Gly | Pro | Gln | His | Ile | Trp | Ser | Thr |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Leu | Leu | Val | Gly | Ala | Arg | Pro | Glu | His | Leu | Thr | Gln | Pro | Val | His | Thr |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ala | Pro | Arg | Val | Pro | Pro | Leu | Ser | Gln | Ala | Gly | Pro | Thr | Ala | Pro | Gly |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ser | Ala | Asp | Lys | Gly | Met | Ala | Cys | Pro | Leu | Arg | Cys | Gln | Asn | Ser | Ile |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Gln | Lys | Ala | Pro | Pro | Gln | Val | Asp | Val | Val | Pro | Gly | Ala | Gly | Glu | Glu |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Ser | Gly | Thr | Thr | Thr | Leu | Ala | Val | Asn | Leu | Ser | Asn | Arg | Gly | Leu | Gly |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Phe | Leu | Val | Ala | Ala | Ser | Cys | Pro | Gly | Leu | Glu | Val | His | Arg | Ser | Arg |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Val | Pro | Leu | Gly | Thr | Lys | Asp | Met | Pro | His | Trp | Gly | Cys | Asn | Gly |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |

|     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Ser | Gly | Lys | Leu | Gly | Ala | Gln | Leu |
| 145 |     |     |     |     | 150 |     |     |     |     |

<210> 608  
 <211> 123  
 <212> PRT  
 <213> homo sapiens

<400> 608

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Gly | Val | Leu | Ser | Leu | Arg | Trp | Val | Gln | Gln | Pro | Trp | Phe | Leu | Trp |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Gly | Leu | Arg | Ile | Arg | Ile | Val | Gly | Arg | Glu | Lys | Leu | Leu | Leu | Glu | Asp |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Phe | Leu | Ser | Gln | Ser | Pro | Arg | Glu | Val | Glu | Arg | Arg | Asn | Phe | Cys | Trp |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Thr | Ser | Ser | Gly | Gln | Arg | Lys | Asp | Gly | Met | Lys | Val | Glu | Lys | Ala | Glu |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Leu | Gln | Leu | Ser | Gly | Asp | Asn | Lys | Glu | Phe | Phe | Ser | Gly | Lys | Ser | Phe |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Val | Leu | Glu | Gln | Gly | Trp | Lys | Met | Gly | Thr | Thr | Lys | Glu | Lys | Gln | Ser |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Val | Thr | Leu | Gly | Phe | Gly | Gln | Pro | Arg | Gly | Pro | Ala | Pro | Gln | Tyr | Lys |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Pro | Tyr | Arg | Pro | Gly | Thr | His | Arg | Arg | Val | Asp |     |     |     |     |     |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     |     |     |     |     |

<210> 609  
 <211> 88  
 <212> PRT  
 <213> homo sapiens

<400> 609

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Glu | Pro | Asn | Gly | Leu | Phe | Trp | Phe | His | Phe | Ser | Ala | Ser | Arg |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Arg | Gln | Asn | Lys | Glu | Ser | His | Ser | Lys | Met | Phe | Ile | Val | Asp | Asn | Met |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ser | Leu | Lys | Val | Val | Pro | Leu | Cys | Ser | Tyr | Ser | Thr | Glu | Glu | Met | Ile |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| His | Ile | Pro | Ile | Ile | Asp | Met | Val | Ser | Gln | Ser | Glu | Glu | Ser | Phe | Arg |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Arg | Leu | His | Lys | Tyr | Val | Leu | Cys | Thr | Cys | Pro | Met | Leu | Gly | Asn | Arg |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Lys | Ile | Ile | Val | Ile | Asp | Lys | Thr |     |     |     |     |     |     |     |     |
|     |     |     |     | 85  |     |     |     |     |     |     |     |     |     |     |     |

<210> 610

00222T"56EE2960

<211> 80  
 <212> PRT  
 <213> homo sapiens

<400> 610

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ser<br>1  | Cys       | Phe       | His       | Lys<br>5 | Leu       | Ser       | Thr       | Gln       | Glu<br>10 | Pro       | Asp       | Gly       | Lys       | Lys<br>15 | Asn       |
| Lys       | Asn       | Tyr       | Ala<br>20 | Asp      | Asn       | Tyr       | Arg       | Lys<br>25 | Ile       | Asn       | Pro       | Asn       | Leu<br>30 | Val       | Lys       |
| Leu       | Val       | Lys<br>35 | Ala       | Cys      | Thr       | Phe       | Gln<br>40 | Arg       | Phe       | Ile       | Arg       | Thr<br>45 | Gly       | Leu       | Asn       |
| Arg       | Glu<br>50 | Phe       | Leu       | Leu      | Asn       | Lys<br>55 | Met       | Ala       | Leu       | Thr       | Leu<br>60 | Val       | Pro       | Arg       | Asn       |
| Trp<br>65 | Asn       | Pro       | Gln       | Arg      | Ser<br>70 | Tyr       | Thr       | Gly       | Asp       | Asn<br>75 | Ser       | Ala       | Leu       | Ile       | Leu<br>80 |

<210> 611  
 <211> 71  
 <212> PRT  
 <213> homo sapiens

<400> 611

|           |           |           |           |          |           |           |           |           |           |     |           |           |           |           |     |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Met<br>1  | Gly       | Ile       | Thr       | His<br>5 | Glu       | Cys       | Val       | Ile       | Leu<br>10 | Leu | Gly       | Ala       | Ser       | Ala<br>15 | Asn |
| Ser       | Leu       | Thr       | Val<br>20 | Val      | Pro       | Ser       | Leu       | Thr<br>25 | Leu       | Pro | Val       | His       | His<br>30 | Leu       | Arg |
| Arg       | Leu       | Asp<br>35 | Pro       | Ser      | Leu       | Thr       | Ser<br>40 | Pro       | Phe       | Leu | Lys       | Pro<br>45 | Val       | Ser       | Phe |
| Ser       | Leu<br>50 | Leu       | Pro       | Asn      | Trp       | Leu<br>55 | Trp       | Leu       | Phe       | Leu | Gln<br>60 | Pro       | Phe       | His       | Ser |
| Arg<br>65 | Ala       | Ile       | Phe       | Ala      | Lys<br>70 | Glu       |           |           |           |     |           |           |           |           |     |

<210> 612  
 <211> 395  
 <212> PRT  
 <213> homo sapiens

<400> 612

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Ala<br>1 | Pro       | Met       | Arg       | Pro<br>5 | Glu | Arg       | Pro       | Arg       | Pro<br>10 | Arg | Gly       | Ser       | Ala       | Pro<br>15 | Gly |
| Pro      | Met       | Glu       | Thr<br>20 | Pro      | Pro | Trp       | Asp       | Pro<br>25 | Ala       | Arg | Asn       | Asp       | Ser<br>30 | Leu       | Pro |
| Pro      | Thr       | Leu<br>35 | Thr       | Pro      | Ala | Val       | Pro<br>40 | Pro       | Tyr       | Val | Lys       | Leu<br>45 | Gly       | Leu       | Thr |
| Val      | Val<br>50 | Tyr       | Thr       | Val      | Phe | Tyr<br>55 | Ala       | Leu       | Leu       | Phe | Val<br>60 | Phe       | Ile       | Tyr       | Val |
| Gln      | Leu       | Trp       | Leu       | Val      | Leu | Arg       | Tyr       | Arg       | His       | Lys | Arg       | Leu       | Ser       | Tyr       | Gln |

09673395-122700

00673395-122700

| 65         |            |            |            | 70         |            |            |            | 75         |            |            |            | 80         |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ser        | Val        | Phe        | Leu        | Phe<br>85  | Leu        | Cys        | Leu        | Phe        | Trp<br>90  | Ala        | Ser        | Leu        | Arg        | Thr<br>95  | Val        |
| Leu        | Phe        | Ser        | Phe<br>100 | Tyr        | Phe        | Lys        | Asp        | Phe<br>105 | Val        | Ala        | Ala        | Asn        | Ser<br>110 | Leu        | Ser        |
| Pro        | Phe        | Val<br>115 | Phe        | Trp        | Leu        | Leu        | Tyr<br>120 | Cys        | Phe        | Pro        | Val        | Cys<br>125 | Leu        | Gln        | Phe        |
| Phe        | Thr<br>130 | Leu        | Thr        | Leu        | Met        | Asn<br>135 | Leu        | Tyr        | Phe        | Thr        | Gln<br>140 | Val        | Ile        | Phe        | Lys        |
| Ala<br>145 | Lys        | Ser        | Lys        | Tyr        | Ser<br>150 | Pro        | Glu        | Leu        | Leu        | Lys<br>155 | Tyr        | Arg        | Leu        | Pro        | Leu<br>160 |
| Tyr        | Leu        | Ala        | Ser        | Leu<br>165 | Phe        | Ile        | Ser        | Leu        | Val<br>170 | Phe        | Leu        | Leu        | Val        | Asn<br>175 | Leu        |
| Thr        | Cys        | Ala        | Val<br>180 | Leu        | Val        | Lys        | Thr        | Gly<br>185 | Asn        | Trp        | Glu        | Arg        | Lys<br>190 | Val        | Ile        |
| Val        | Ser        | Val<br>195 | Arg        | Val        | Ala        | Ile        | Asn<br>200 | Asp        | Thr        | Leu        | Phe        | Val<br>205 | Leu        | Cys        | Ala        |
| Val        | Ser<br>210 | Leu        | Ser        | Ile        | Cys        | Leu<br>215 | Tyr        | Lys        | Ile        | Ser        | Lys<br>220 | Met        | Ser        | Leu        | Ala        |
| Asn<br>225 | Ile        | Tyr        | Leu        | Glu        | Ser<br>230 | Lys        | Gly        | Ser        | Ser        | Val<br>235 | Cys        | Gln        | Val        | Thr        | Ala<br>240 |
| Ile        | Gly        | Val        | Thr        | Val<br>245 | Ile        | Leu        | Leu        | Tyr        | Thr<br>250 | Ser        | Arg        | Ala        | Cys        | Tyr<br>255 | Asn        |
| Leu        | Phe        | Ile        | Leu<br>260 | Ser        | Phe        | Ser        | Gln        | Asn<br>265 | Lys        | Ser        | Val        | His        | Ser<br>270 | Phe        | Asp        |
| Tyr        | Asp        | Trp<br>275 | Tyr        | Asn        | Val        | Ser        | Asp<br>280 | Gln        | Ala        | Asp        | Leu        | Lys<br>285 | Asn        | Gln        | Leu        |
| Gly        | Asp<br>290 | Ala        | Gly        | Tyr        | Val        | Leu<br>295 | Phe        | Gly        | Val        | Val        | Leu<br>300 | Phe        | Val        | Trp        | Glu        |
| Leu<br>305 | Leu        | Pro        | Thr        | Thr        | Leu<br>310 | Val        | Val        | Tyr        | Phe        | Phe<br>315 | Arg        | Val        | Arg        | Asn        | Pro<br>320 |
| Thr        | Lys        | Asp        | Leu        | Thr<br>325 | Asn        | Pro        | Gly        | Met        | Val<br>330 | Pro        | Ser        | His        | Gly        | Phe<br>335 | Ser        |
| Pro        | Arg        | Ser        | Tyr<br>340 | Phe        | Phe        | Asp        | Asn        | Pro<br>345 | Arg        | Arg        | Tyr        | Asp        | Ser<br>350 | Asp        | Asp        |
| Asp        | Leu        | Ala<br>355 | Trp        | Asn        | Ile        | Ala        | Pro<br>360 | Gln        | Gly        | Leu        | Gln        | Gly<br>365 | Gly        | Phe        | Ala        |
| Pro        | Asp<br>370 | Tyr        | Tyr        | Asp        | Trp        | Gly<br>375 | Gln        | Gln        | Thr        | Asn        | Ser<br>380 | Phe        | Leu        | Ala        | Gln        |
| Ala<br>385 | Gly        | Thr        | Leu        | Gln        | Arg<br>390 | Leu        | Asn        | Phe        | Gly        | Ser<br>395 |            |            |            |            |            |





002221"5652960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Glu | Asp | Gly | Pro | Gln | Gly | Gly | Pro | Glu | Glu | Ala | Glu | Lys | Glu | Glu |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Asp | Ala | Leu | Val | Ala | Glu | Pro | Leu | Val | Ala | Val | Thr | Gln | His | Gln | Pro |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Glu | Leu | His | Val | Asp | Glu | His | Glu | Glu | Gln | Arg | Val | Glu | His | Gly | Val |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Asp | Asp | Gly | Glu | Ala | Lys | Leu | His | Val | Gly | Gly | His | Gly | Arg | Gly | Gln |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Arg | Gly | Arg | Gln | Arg | Val | Val | Ala | Gly | Trp | Val | Pro | Arg | Arg | Gly | Leu |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| His | Arg | Ala | Gly | Gly | Ala | Ala | Ala | Arg | Pro | Gly | Thr | Leu | Gly | Pro | His |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Arg | Gly | Ser | Arg | Pro | Pro | Pro | Pro | Pro | Arg | Gly | Ser | Pro | Arg | Ile | Ala |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |

Pro

<210> 615  
 <211> 102  
 <212> PRT  
 <213> homo sapiens

<400> 615

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Lys | Lys | Thr | Ser | Ser | Tyr | Ser | Gly | Val | Thr | Val | Cys | Ser | Tyr | Asp |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Ser | Ile | Ile | Arg | Leu | Lys | Ala | Gly | Glu | Ile | Cys | Val | Gln | Phe | Asn | Arg |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Thr | Gln | Leu | Lys | Gly | Arg | Gln | Val | Gly | Trp | Glu | Arg | Lys | Leu | Leu | Ser |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Gly | Gly | Ile | Arg | Gly | Asn | Gln | Ser | Lys | Thr | Lys | Phe | Tyr | Cys | Leu | Gln |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Phe | Asn | Ser | Ile | Ile | Ala | Ile | Met | Cys | Ser | Gly | Lys | His | Ile | Pro | Val |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Leu | Leu | Asp | Arg | Val | Ser | Phe | Pro | Phe | Ser | Gly | Thr | Lys | Met | Val | Glu |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Gly | Ile | Ile | Asn | Pro | Thr |     |     |     |     |     |     |     |     |     |     |
|     |     |     | 100 |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 616  
 <211> 86  
 <212> PRT  
 <213> homo sapiens

<400> 616

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Cys | Leu | Ser | Leu | Tyr | Val | Glu | Thr | Asn | Phe | Thr | Met | Ile | Thr |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Asp | Leu | Cys | Asn | Ile | Ser | Ser | Leu | Asn | Phe | His | Thr | Ile | Leu | Lys | Cys |

00227"5657960

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Leu | Leu | Glu | Asn | Leu | His | Leu | Phe | Val | Pro | Arg | Cys | Ser | Ser | Ser | Ile |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Lys | Pro | Trp | Ala | Tyr | Phe | Ser | Val | Leu | Leu | Arg | Pro | Asn | Phe | Val | Gly |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Arg | Gly | Gly | Gln | Phe | Cys | Ile | Asn | Ile | Arg | Tyr | Phe | Val | Ile | His | Ser |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Pro | Asn | Leu | Lys | Leu | Tyr |     |     |     |     |     |     |     |     |     |     |  |
|     |     |     |     | 85  |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 617  
 <211> 76  
 <212> PRT  
 <213> homo sapiens

<400> 617

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Arg | Met | Leu | Ile | Gln | Asn | Cys | Pro | Pro | Arg | Pro | Thr | Lys | Phe | Gly | Leu |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Arg | Arg | Thr | Leu | Lys | Tyr | Ala | His | Gly | Phe | Ile | Asp | Glu | Glu | His | Leu |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Gly | Thr | Lys | Arg | Cys | Lys | Phe | Ser | Ser | Arg | His | Phe | Lys | Ile | Val | Trp |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Lys | Phe | Lys | Leu | Glu | Met | Leu | His | Arg | Ser | Val | Ile | Met | Val | Lys | Leu |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Val | Ser | Thr | Tyr | Lys | Asp | Lys | Gln | Val | Thr | His | Trp |     |     |     |     |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     |     |  |

<210> 618  
 <211> 378  
 <212> PRT  
 <213> homo sapiens

<400> 618

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ser | Arg | Cys | Arg | Phe | Cys | Cys | Arg | Leu | Ser | Ala | Ala | Phe | Leu | Pro | Arg |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Ala | Met | Leu | Gly | Leu | Ala | Ile | Val | Leu | Ala | Gly | Arg | Leu | Asn | Glu | Gly |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Asp | Arg | Phe | Leu | Lys | Pro | Pro | Ile | Ser | Leu | Arg | Asn | Phe | Ser | Phe | Trp |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Ser | Ser | Phe | Ser | Lys | Pro | Ala | Val | Ser | His | Trp | Pro | Asn | Trp | Val | Pro |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Val | His | Phe | Leu | Val | Ser | Glu | Ala | Ser | Val | Leu | Pro | Asp | Ser | Arg | Ser |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Ile | Ser | Ser | Cys | Lys | Ala | Phe | Arg | Leu | Thr | Trp | Ser | Met | Cys | Ala | Ser |  |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |
| Ser | Met | Leu | Pro | Phe | Phe | Ser | Asn | Thr | Thr | Ser | Lys | Ser | Val | Ser | Val |  |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |

002227 56552960

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ser        | Ser        | Leu<br>115 | Gln        | Gly        | Ser        | Pro        | Ala<br>120 | Thr        | Pro        | Leu        | Ser        | Phe<br>125 | Leu        | Phe        | Phe        |
| Leu        | Val<br>130 | Phe        | Leu        | Phe        | Arg        | Ala<br>135 | Gly        | Ser        | Ser        | Met        | Thr<br>140 | Gly        | Cys        | Ser        | Thr        |
| Phe<br>145 | Phe        | Leu        | Asp        | Phe        | Ile<br>150 | Phe        | Phe        | Phe        | Ala        | Glu<br>155 | Asp        | Leu        | Gly        | Ser        | Ser<br>160 |
| Leu        | Met        | Gly        | Met        | Tyr<br>165 | Ser        | Gly        | Ala        | Ser        | Thr<br>170 | Leu        | Thr        | Gly        | Phe        | Phe<br>175 | Leu        |
| Leu        | Pro        | Phe        | Leu<br>180 | Gly        | Leu        | Leu        | Ser        | Met<br>185 | Asp        | Leu        | Glu        | Gly        | Leu        | Glu        | Trp        |
| Pro        | Gly        | Arg<br>195 | Ala        | Ser        | Pro        | Ser        | Trp<br>200 | Trp        | Ile        | Phe        | Phe        | Phe<br>205 | Phe        | Phe        | Thr        |
| Phe        | Pro<br>210 | Leu        | Cys        | Ser        | Leu        | Gly<br>215 | Leu        | Phe        | Arg        | Leu        | Pro<br>220 | Phe        | Leu        | Xxx        | Pro        |
| Arg<br>225 | Leu        | Pro        | Val        | Pro        | His<br>230 | Pro        | Ser        | Ser        | Pro        | Leu<br>235 | Xxx        | Gln        | Val        | Ser        | Pro<br>240 |
| Thr        | Ser        | Leu        | Ala        | Ser<br>245 | Leu        | Ala        | Ser        | Gln        | Asn<br>250 | Gln        | Gly        | Ser        | Trp        | Thr<br>255 | Glu        |
| Lys        | Ala        | Xxx        | Gly<br>260 | Val        | Leu        | Gly        | Pro        | Pro<br>265 | Phe        | Phe        | Pro        | Ser        | Cys<br>270 | Xxx        | Phe        |
| Leu        | Ser        | Phe<br>275 | Leu        | Pro        | Thr        | Leu        | Val<br>280 | Ser        | Ser        | Ser        | Pro        | Cys<br>285 | Leu        | Xxx        | Val        |
| Leu        | Gly<br>290 | Arg        | Phe        | Ser        | Pro        | Gln<br>295 | Arg        | His        | Gly        | Thr        | Trp<br>300 | Leu        | Glu        | Val        | Thr        |
| Ser<br>305 | Xxx        | Phe        | Phe        | Phe        | Ser<br>310 | Pro        | Leu        | Arg        | Asn        | Ser<br>315 | Lys        | Trp        | Pro        | Asn        | Thr<br>320 |
| Cys        | Phe        | Leu        | Arg        | Leu<br>325 | Gly        | Asp        | Phe        | Ser        | Val<br>330 | Arg        | Leu        | Ala        | Gly        | Ser<br>335 | Val        |
| Val        | Ser        | Gly        | Ser<br>340 | Thr        | Cys        | Ser        | Ser        | Gln<br>345 | Arg        | Val        | Leu        | Thr        | Pro<br>350 | Phe        | Phe        |
| Phe        | Phe        | Phe<br>355 | Phe        | Phe        | Phe        | Thr        | Arg<br>360 | Gly        | Ile        | Ser        | Gly        | Ala<br>365 | Cys        | Pro        | Trp        |
| Ala        | Thr<br>370 | Leu        | Leu        | Xxx        | Gly        | Gly<br>375 | Cys        | Ser        | Ser        |            |            |            |            |            |            |

<210> 619  
 <211> 269  
 <212> PRT  
 <213> homo sapiens

<400> 619

|          |     |     |     |          |     |     |     |     |           |     |     |     |     |           |     |
|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Gly<br>1 | Thr | Gly | Ser | Leu<br>5 | Gly | Xxx | Arg | Asn | Gly<br>10 | Xxx | Arg | Lys | Ser | Pro<br>15 | Arg |
| Glu      | His | Asn | Gly | Lys      | Val | Lys | Lys | Lys | Lys       | Lys | Ile | His | Gln | Glu       | Gly |

| 20         |            |            |            |            |            |            |            | 25         |            |            |            | 30         |            |            |            |  |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Asp        | Ala        | Leu<br>35  | Pro        | Gly        | His        | Ser        | Lys<br>40  | Pro        | Ser        | Arg        | Ser        | Met<br>45  | Glu        | Ser        | Ser        |  |
| Pro        | Arg<br>50  | Lys        | Gly        | Ser        | Lys        | Lys<br>55  | Lys        | Pro        | Val        | Lys        | Val<br>60  | Glu        | Ala        | Pro        | Glu        |  |
| Tyr<br>65  | Ile        | Pro        | Ile        | Ser        | Asp<br>70  | Asp        | Pro        | Lys        | Ser        | Ser<br>75  | Ala        | Lys        | Lys        | Lys        | Met<br>80  |  |
| Lys        | Ser        | Lys        | Lys        | Lys<br>85  | Val        | Glu        | Gln        | Pro        | Val<br>90  | Ile        | Glu        | Glu        | Pro        | Ala<br>95  | Leu        |  |
| Lys        | Arg        | Lys        | Thr<br>100 | Arg        | Lys        | Lys        | Arg        | Lys<br>105 | Glu        | Ser        | Gly        | Val        | Ala<br>110 | Gly        | Asp        |  |
| Pro        | Trp        | Arg<br>115 | Glu        | Glu        | Thr        | Asp        | Thr<br>120 | Asp        | Leu        | Glu        | Val        | Val<br>125 | Leu        | Glu        | Lys        |  |
| Lys        | Gly<br>130 | Asn        | Met        | Asp        | Glu        | Ala<br>135 | His        | Ile        | Asp        | Gln        | Val<br>140 | Arg        | Arg        | Lys        | Ala        |  |
| Leu<br>145 | Gln        | Glu        | Glu        | Ile        | Asp<br>150 | Arg        | Glu        | Ser        | Gly        | Lys<br>155 | Thr        | Glu        | Ala        | Ser        | Glu<br>160 |  |
| Thr        | Arg        | Lys        | Trp        | Thr<br>165 | Gly        | Thr        | Gln        | Phe        | Gly<br>170 | Gln        | Trp        | Asp        | Thr        | Ala<br>175 | Gly        |  |
| Phe        | Glu        | Asn        | Glu<br>180 | Asp        | Gln        | Lys        | Leu        | Lys<br>185 | Phe        | Leu        | Arg        | Leu        | Met<br>190 | Gly        | Gly        |  |
| Phe        | Lys        | Asn<br>195 | Leu        | Ser        | Pro        | Ser        | Phe<br>200 | Ser        | Arg        | Pro        | Ala        | Ser<br>205 | Thr        | Ile        | Ala        |  |
| Arg        | Pro<br>210 | Asn        | Met        | Ala        | Leu        | Gly<br>215 | Lys        | Lys        | Ala        | Ala        | Asp<br>220 | Ser        | Leu        | Gln        | Gln        |  |
| Asn<br>225 | Leu        | Gln        | Arg        | Asp        | Tyr<br>230 | Asp        | Arg        | Ala        | Met        | Ser<br>235 | Leu        | Glu        | Val        | Gln        | Pro<br>240 |  |
| Gly        | Ser        | Arg        | Leu        | Ala<br>245 | Val        | Phe        | Ser        | Thr        | Ala<br>250 | Pro        | Asn        | Lys        | Ile        | Phe<br>255 | Tyr        |  |
| Ile        | Asp        | Arg        | Asn<br>260 | Ala        | Ser        | Lys        | Ser        | Val<br>265 | Lys        | Leu        | Glu        | Asp        |            |            |            |  |

&lt;210&gt; 620

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; homo sapiens

&lt;400&gt; 620

|          |     |           |           |          |     |     |           |           |           |     |     |           |           |           |     |  |
|----------|-----|-----------|-----------|----------|-----|-----|-----------|-----------|-----------|-----|-----|-----------|-----------|-----------|-----|--|
| Val<br>1 | Arg | Val       | Cys       | Phe<br>5 | Leu | Pro | Pro       | Arg       | Val<br>10 | Ser | Cys | Tyr       | Pro       | Thr<br>15 | Leu |  |
| Phe      | Pro | Leu       | Leu<br>20 | Pro      | Arg | Leu | Pro       | Phe<br>25 | Gln       | Ser | Trp | Leu       | Leu<br>30 | Asp       | Asp |  |
| Trp      | Leu | Leu<br>35 | Tyr       | Leu      | Leu | Phe | Gly<br>40 | Leu       | His       | Leu | Phe | Leu<br>45 | Cys       | Gly       | Gly |  |

00673395-122700

|            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Leu        | Arg<br>50  | Val        | Ile        | Thr        | Tyr        | Gly<br>55  | Asp        | Val        | Phe        | Arg        | Ser<br>60  | Leu        | Asn        | Phe        | Asp        |
| Trp<br>65  | Leu        | Leu        | Phe        | Thr        | Ser<br>70  | Phe        | Pro        | Arg        | Ala        | Ala<br>75  | Leu        | His        | Gly        | Pro        | Gly<br>80  |
| Gly        | Leu        | Gly        | Val        | Ala<br>85  | Trp        | Glu        | Gly        | Ile        | Ser<br>90  | Leu        | Leu        | Val        | Asp        | Phe<br>95  | Phe        |
| Phe        | Leu        | Leu        | His<br>100 | Leu        | Pro        | Ile        | Val        | Phe<br>105 | Ser        | Gly        | Ala        | Leu        | Pro<br>110 | Xxx        | Ser        |
| Val        | Ser        | Xxx<br>115 | Pro        | Lys        | Ala        | Ala        | Cys<br>120 | Ser        | Ser        | Ser        | Phe        | Phe<br>125 | Pro        | Thr        | Xxx        |
| Ala        | Ser<br>130 | Val        | Pro        | Asn        | Ile        | Pro<br>135 | Gly        | Leu        | Pro        | Gly        | Leu<br>140 | Thr        | Glu        | Pro        | Arg        |
| Val<br>145 | Leu        | Asp        | Arg        | Glu        | Gly<br>150 | Xxx        | Trp        | Gly        | Pro        | Gly<br>155 | Xxx        | Pro        | Phe        | Phe        | Ser<br>160 |
| Phe        | Leu        | Xxx        | Phe        | Phe<br>165 | Glu        | Leu        | Leu        | Ala        | Asn<br>170 | Ser        | Gly        | Phe        | Leu        | Leu<br>175 | Thr        |
| Leu        | Ser        | Xxx        | Gly<br>180 | Xxx        | Gly        | Glu        | Val        | Phe<br>185 | Thr        | Pro        | Glu        | Ala        | Trp<br>190 | Asp        | Met        |
| Ala        | Arg        | Gly<br>195 | Asp        | Phe        | Leu        | Xxx        | Phe<br>200 | Leu        | Phe        | Pro        | Thr        | Glu<br>205 | Glu        | Leu        | Gln        |
| Val        | Ala<br>210 | Lys        | His        | Leu        | Leu        | Pro<br>215 | Glu        | Ala        | Gly        |            |            |            |            |            |            |

<210> 621  
 <211> 389  
 <212> PRT  
 <213> homo sapiens

<400> 621

|           |           |            |            |           |           |           |            |            |           |           |           |            |            |           |           |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Ala<br>1  | Ala       | Gly        | Ala        | Cys<br>5  | Gly       | Ala       | Arg        | Gly        | Ser<br>10 | Gly       | Arg       | Arg        | Gly        | Ser<br>15 | Tyr       |
| Val       | Pro       | Glu        | Val<br>20  | Arg       | Cys       | Gly       | Ala        | Pro<br>25  | Gly       | Gly       | Ala       | Ala        | Gly<br>30  | Thr       | Gly       |
| Ala       | Pro       | Arg<br>35  | Ser        | Cys       | Cys       | Cys       | Gln<br>40  | Thr        | Asn       | Pro       | Gly       | Pro<br>45  | Pro        | Ser       | Ser       |
| Leu       | Arg<br>50 | Arg        | Ala        | Phe       | Arg       | Arg<br>55 | Arg        | Glu        | Leu       | Pro       | Phe<br>60 | Pro        | Ala        | Cys       | His       |
| Glu<br>65 | Ile       | Gly        | Leu        | Gly       | Ala<br>70 | Glu       | Ala        | Gly        | Ser       | Gly<br>75 | Pro       | Pro        | Pro        | Ala       | Pro<br>80 |
| Ala       | Ala       | Arg        | Glu        | Ser<br>85 | Arg       | Ser       | Arg        | Ala        | Met<br>90 | Glu       | Glu       | Glu        | Ala        | Ser<br>95 | Ser       |
| Pro       | Gly       | Leu        | Gly<br>100 | Cys       | Ser       | Lys       | Pro        | His<br>105 | Leu       | Glu       | Lys       | Leu        | Thr<br>110 | Leu       | Gly       |
| Ile       | Thr       | Arg<br>115 | Ile        | Leu       | Glu       | Ser       | Ser<br>120 | Pro        | Gly       | Val       | Thr       | Glu<br>125 | Val        | Thr       | Ile       |

00673395-122700

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Glu | Lys | Pro | Pro | Ala | Glu | Arg | His | Met | Ile | Ser | Ser | Trp | Glu | Gln |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Lys | Asn | Asn | Cys | Val | Met | Pro | Glu | Asp | Val | Lys | Asn | Phe | Tyr | Leu | Met |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Thr | Asn | Gly | Phe | His | Met | Thr | Trp | Ser | Val | Lys | Leu | Asp | Glu | His | Ile |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Ile | Pro | Leu | Gly | Ser | Met | Ala | Ile | Asn | Ser | Ile | Ser | Lys | Leu | Thr | Gln |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Leu | Thr | Gln | Ser | Ser | Met | Tyr | Ser | Leu | Pro | Asn | Ala | Pro | Thr | Leu | Ala |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Asp | Leu | Glu | Asp | Asp | Thr | His | Glu | Ala | Ser | Asp | Asp | Gln | Pro | Glu | Lys |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Pro | His | Phe | Asp | Ser | Arg | Ser | Val | Ile | Phe | Glu | Leu | Asp | Ser | Cys | Asn |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |
| Gly | Ser | Gly | Lys | Val | Cys | Leu | Val | Tyr | Lys | Ser | Gly | Lys | Pro | Ala | Leu |
|     |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |
| Ala | Glu | Asp | Thr | Glu | Ile | Trp | Phe | Leu | Asp | Arg | Ala | Leu | Tyr | Trp | His |
|     |     |     | 260 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |
| Phe | Leu | Thr | Asp | Thr | Phe | Thr | Ala | Tyr | Tyr | Arg | Leu | Leu | Ile | Thr | His |
|     |     | 275 |     |     |     |     | 280 |     |     |     |     | 285 |     |     |     |
| Leu | Gly | Leu | Pro | Gln | Trp | Gln | Tyr | Ala | Phe | Thr | Ser | Tyr | Gly | Ile | Ser |
|     | 290 |     |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |
| Pro | Gln | Ala | Lys | Gln | Trp | Phe | Ser | Met | Tyr | Lys | Pro | Ile | Thr | Tyr | Asn |
| 305 |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |
| Thr | Asn | Leu | Leu | Thr | Glu | Glu | Thr | Asp | Ser | Phe | Val | Asn | Lys | Leu | Asp |
|     |     |     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |
| Pro | Ser | Lys | Val | Phe | Lys | Ser | Lys | Asn | Lys | Ile | Val | Ile | Pro | Lys | Lys |
|     |     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |
| Lys | Gly | Pro | Val | Gln | Pro | Ala | Gly | Gly | Gln | Lys | Gly | Pro | Ser | Gly | Pro |
|     |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |
| Ser | Gly | Pro | Ser | Thr | Ser | Ser | Thr | Ser | Lys | Ser | Ser | Ser | Gly | Ser | Gly |
|     | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |
| Asn | Pro | Thr | Arg | Lys |     |     |     |     |     |     |     |     |     |     |     |
| 385 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 622  
 <211> 109  
 <212> PRT  
 <213> homo sapiens

<400> 622

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Pro | Ala | Pro | Ala | Gly | Arg | Glu | Gly | Arg | Gly | Glu | Gly | Glu | Ala |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Thr | Ser | Arg | Arg | Cys | Gly | Val | Gly | His | Arg | Ala | Gly | Pro | Arg | Glu | Pro |

00673395-122700

| 20        |           |           |            | 25        |           |           |           | 30         |           |           |           |           |     |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----|-----------|-----------|
| Ala       | Pro       | His<br>35 | Gly        | Ala       | Ala       | Ala       | Val<br>40 | Arg        | Pro       | Thr       | Pro       | Gly<br>45 | Pro | His       | His       |
| His       | Cys<br>50 | Ala       | Ala        | Leu       | Ser       | Gly<br>55 | Ala       | Glu        | Asn       | Tyr       | Arg<br>60 | Ser       | Arg | His       | Ala       |
| Met<br>65 | Lys       | Leu       | Ala        | Ser       | Ala<br>70 | Leu       | Arg       | Arg        | Gly       | Pro<br>75 | Ala       | Leu       | His | Pro       | Leu<br>80 |
| Pro       | Pro       | Arg       | Ala        | Asn<br>85 | Arg       | Gly       | Arg       | Glu        | Pro<br>90 | Trp       | Arg       | Arg       | Arg | His<br>95 | Arg       |
| Pro       | Arg       | Gly       | Trp<br>100 | Ala       | Ala       | Ala       | Ser       | Arg<br>105 | Thr       | Trp       | Arg       | Ser       |     |           |           |

<210> 623  
 <211> 96  
 <212> PRT  
 <213> homo sapiens

<400> 623

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Arg<br>1  | Ser       | Ala       | Gly       | Gly<br>5  | Phe       | Ser       | Met       | Met       | Val<br>10 | Thr       | Ser       | Val       | Thr       | Pro<br>15 | Gly       |
| Glu       | Asp       | Ser       | Arg<br>20 | Met       | Arg       | Val       | Met       | Pro<br>25 | Arg       | Val       | Ser       | Phe       | Ser<br>30 | Arg       | Cys       |
| Gly       | Leu       | Leu<br>35 | Gln       | Pro       | Ser       | Pro       | Gly<br>40 | Asp       | Asp       | Ala       | Ser       | Ser<br>45 | Ser       | Met       | Ala       |
| Arg       | Asp<br>50 | Arg       | Asp       | Ser       | Arg       | Ala<br>55 | Ala       | Gly       | Ala       | Gly       | Gly<br>60 | Gly       | Pro       | Asp       | Pro       |
| Ala<br>65 | Ser       | Ala       | Pro       | Arg       | Pro<br>70 | Ile       | Ser       | Trp       | His       | Ala<br>75 | Gly       | Asn       | Gly       | Ser       | Ser<br>80 |
| Arg       | Arg       | Leu       | Lys       | Ala<br>85 | Arg       | Arg       | Ser       | Asp       | Asp<br>90 | Gly       | Gly       | Pro       | Gly       | Leu<br>95 | Val       |

<210> 624  
 <211> 218  
 <212> PRT  
 <213> homo sapiens

<400> 624

|           |           |           |           |          |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Cys<br>1  | Cys       | Thr       | Glu       | His<br>5 | Arg       | Trp       | Pro       | Ala       | Ser<br>10 | Met       | Pro       | Pro       | Gln       | Leu<br>15 | Gln       |
| Glu       | Thr       | Arg       | Met<br>20 | Asn      | Arg       | Ser       | Ile       | Pro<br>25 | Val       | Glu       | Val       | Asp       | Glu<br>30 | Ser       | Glu       |
| Pro       | Tyr       | Pro<br>35 | Ser       | Gln      | Leu       | Leu       | Lys<br>40 | Pro       | Ile       | Pro       | Glu       | Tyr<br>45 | Ser       | Pro       | Glu       |
| Glu       | Glu<br>50 | Ser       | Glu       | Pro      | Pro       | Ala<br>55 | Pro       | Asn       | Ile       | Arg       | Asn<br>60 | Met       | Ala       | Pro       | Asn       |
| Ser<br>65 | Leu       | Ser       | Ala       | Pro      | Thr<br>70 | Met       | Leu       | His       | Asn       | Ser<br>75 | Ser       | Gly       | Asp       | Phe       | Ser<br>80 |

09673395-122700

|                    |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Gln                | Ala        | His        | Ser        | Thr<br>85  | Leu        | Lys        | Leu        | Ala        | Asn<br>90  | His        | Gln        | Arg        | Pro        | Val<br>95  | Ser        |  |
| Arg                | Gln        | Val        | Thr<br>100 | Cys        | Leu        | Arg        | Thr        | Gln<br>105 | Val        | Leu        | Glu        | Asp        | Ser<br>110 | Glu        | Asp        |  |
| Ser                | Phe        | Cys<br>115 | Arg        | Arg        | His        | Pro        | Gly<br>120 | Leu        | Gly        | Lys        | Ala        | Phe<br>125 | Pro        | Ser        | Gly        |  |
| Cys                | Ser<br>130 | Ala        | Val        | Ser        | Glu        | Pro<br>135 | Ala        | Ser        | Glu        | Ser        | Val<br>140 | Val        | Gly        | Ala        | Leu        |  |
| Pro<br>145         | Ala        | Glu        | His        | Gln        | Phe<br>150 | Ser        | Phe        | Met        | Glu        | Lys<br>155 | Arg        | Asn        | Gln        | Trp        | Leu<br>160 |  |
| Val                | Ser        | Gln        | Leu        | Ser<br>165 | Ala        | Ala        | Ser        | Pro        | Asp<br>170 | Thr        | Gly        | His        | Asp        | Ser<br>175 | Asp        |  |
| Lys                | Ser        | Asp        | Gln<br>180 | Ser        | Leu        | Pro        | Asn        | Ala<br>185 | Ser        | Ala        | Asp        | Ser        | Leu<br>190 | Gly        | Gly        |  |
| Ser                | Gln        | Glu<br>195 | Met        | Val        | Gln        | Arg        | Pro<br>200 | Gln        | Pro        | Xxx        | Gln        | Glu<br>205 | Pro        | Ser        | Arg        |  |
| Pro<br>210         | Gly        | Ser        | Ala        | Asn        | His        | Arg<br>215 | His        | Gly        | Ile        |            |            |            |            |            |            |  |
| <210> 625          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
| <211> 212          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
| <212> PRT          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
| <213> homo sapiens |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
| <400> 625          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |  |
| Asn<br>1           | Leu        | Gln        | Ile        | Thr<br>5   | Ser        | Gly        | Leu        | Tyr        | Pro<br>10  | Gly        | Arg        | Ser        | Pro        | Ala<br>15  | Cys        |  |
| Ala                | Leu        | Lys        | Phe<br>20  | Trp        | Arg        | Thr        | Val        | Lys<br>25  | Thr        | Val        | Ser        | Ala        | Gly<br>30  | Asp        | Thr        |  |
| Gln                | Ala        | Trp<br>35  | Ala        | Lys        | Leu        | Ser        | Leu<br>40  | Leu        | Gly        | Ala        | Leu        | Gln<br>45  | Ser        | Ala        | Ser        |  |
| Leu                | Arg<br>50  | Leu        | Ser        | Leu        | Trp        | Leu<br>55  | Glu        | Pro        | Ser        | Leu        | Gln<br>60  | Ser        | Ile        | Ser        | Phe        |  |
| His<br>65          | Leu        | Trp        | Lys        | Asn        | Val<br>70  | Ile        | Asn        | Gly        | Trp        | Tyr<br>75  | Leu        | Ser        | Phe        | Gln        | Arg<br>80  |  |
| Leu                | Leu        | Leu        | Thr        | Leu<br>85  | Ala        | Met        | Thr        | Gln        | Thr<br>90  | Asn        | Gln        | Thr        | Lys        | Val<br>95  | Tyr        |  |
| Leu                | Met        | Pro        | Gln<br>100 | Gln        | Thr        | Pro        | Trp        | Ala<br>105 | Val        | Ala        | Arg        | Arg        | Trp<br>110 | Cys        | Asn        |  |
| Gly                | Pro        | Ser<br>115 | Leu        | His        | Arg        | Asn        | Arg<br>120 | Ala        | Gly        | Leu        | Asp        | Leu<br>125 | Pro        | Thr        | Ile        |  |
| Asp                | Thr<br>130 | Gly        | Tyr        | Asp        | Ser        | Gln<br>135 | Pro        | Gln        | Asp        | Val        | Leu<br>140 | Gly        | Ile        | Arg        | Gln        |  |
| Leu                | Glu        | Arg        | Pro        | Leu        | Xxx        | Leu        | Thr        | Ser        | Val        | Cys        | Tyr        | Pro        | Gln        | Asp        | Leu        |  |



|     |            |            |            |            |     |     |            |            |            |     |     |            |            |            |     |
|-----|------------|------------|------------|------------|-----|-----|------------|------------|------------|-----|-----|------------|------------|------------|-----|
| 145 |            |            |            |            | 150 |     |            |            |            | 155 |     |            |            |            | 160 |
| Pro | Arg        | Pro        | Leu        | Arg<br>165 | Ser | Arg | Glu        | Phe        | Pro<br>170 | Gln | Phe | Glu        | Pro        | Gln<br>175 | Arg |
| Tyr | Pro        | Ala        | Cys<br>180 | Ala        | Gln | Met | Leu        | Pro<br>185 | Pro        | Asn | Leu | Ser        | Pro<br>190 | His        | Ala |
| Pro | Trp        | Asn<br>195 | Tyr        | His        | Tyr | His | Cys<br>200 | Pro        | Gly        | Ser | Pro | Asp<br>205 | His        | Gln        | Val |
| Xxx | Ile<br>210 | Trp        | Pro        |            |     |     |            |            |            |     |     |            |            |            |     |

<210> 626  
<400> 626  
000

<210> 627  
<400> 627  
000

<210> 628  
<400> 628  
000

<210> 629  
<400> 629  
000

<210> 630  
<211> 184  
<212> PRT  
<213> homo sapiens

<400> 630

|           |            |            |            |           |           |            |            |            |           |           |            |            |            |           |           |
|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|
| Phe<br>1  | Met        | Ile        | Asn        | Val<br>5  | Ser       | Phe        | Phe        | Phe        | Phe<br>10 | Leu       | Ala        | Ala        | Gly        | Arg<br>15 | Gly       |
| Lys       | Glu        | Glu        | Glu<br>20  | Met       | Gly       | Cys        | Asp        | Gly<br>25  | Ser       | Lys       | Ala        | Gly        | Lys<br>30  | Val       | Ser       |
| His       | Gly        | Pro<br>35  | Gln        | Thr       | Pro       | Phe        | Pro<br>40  | Pro        | Leu       | Ser       | Leu        | Ser<br>45  | Pro        | Leu       | Pro       |
| Lys       | Lys<br>50  | Lys        | Lys        | Lys       | Glu       | Thr<br>55  | Phe        | Ile        | Met       | Asn       | Gln<br>60  | Gln        | Gly        | Phe       | Ser       |
| Pro<br>65 | Tyr        | Gln        | Arg        | Glu       | Met<br>70 | Trp        | Lys        | Glu        | Leu       | Lys<br>75 | Lys        | Pro        | Pro        | Phe       | Val<br>80 |
| Pro       | Asn        | Ser        | Thr        | Leu<br>85 | Pro       | Ile        | Phe        | Tyr        | Ala<br>90 | Thr       | Gln        | Thr        | Leu        | Ser<br>95 | Phe       |
| Trp       | Val        | Pro        | Phe<br>100 | Leu       | Gln       | Met        | Asp        | Leu<br>105 | Leu       | Arg       | Arg        | Ile        | Ile<br>110 | Val       | Phe       |
| His       | Val        | Phe<br>115 | Ser        | Pro       | Gln       | Val        | Thr<br>120 | Lys        | Ile       | Asn       | Ile        | Cys<br>125 | Ile        | Tyr       | Asn       |
| Leu       | Tyr<br>130 | Tyr        | Cys        | Tyr       | Ile       | Phe<br>135 | Val        | Asp        | Asn       | Thr       | Phe<br>140 | Arg        | Trp        | Cys       | Trp       |

00673395-122700

|            |     |     |            |            |            |     |     |     |            |            |     |     |     |            |            |
|------------|-----|-----|------------|------------|------------|-----|-----|-----|------------|------------|-----|-----|-----|------------|------------|
| Val<br>145 | Ile | Tyr | Tyr        | Asn        | Leu<br>150 | Asn | Leu | Gly | Ile        | Ser<br>155 | Phe | Gly | Leu | Pro        | Gln<br>160 |
| Ser        | Leu | Leu | Arg        | Trp<br>165 | Gly        | Pro | Trp | Tyr | Gly<br>170 | Lys        | Thr | Pro | Arg | Tyr<br>175 | Asn        |
| Val        | Thr | Ser | Pro<br>180 | Gln        | Pro        | Leu | Tyr |     |            |            |     |     |     |            |            |

<210> 631  
 <211> 138  
 <212> PRT  
 <213> homo sapiens

<400> 631

|           |            |            |            |           |           |            |            |            |           |           |           |            |            |           |           |
|-----------|------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|
| Gly<br>1  | Pro        | Trp        | Leu        | Thr<br>5  | Phe       | Pro        | Ala        | Phe        | Asp<br>10 | Pro       | Ser       | His        | Pro        | Ile<br>15 | Ser       |
| Ser       | Ser        | Phe        | Pro<br>20  | Leu       | Pro       | Ala        | Ala        | Lys<br>25  | Lys       | Lys       | Lys       | Lys        | Glu<br>30  | Thr       | Phe       |
| Ile       | Met        | Asn<br>35  | Gln        | Gln       | Gly       | Phe        | Ser<br>40  | Pro        | Tyr       | Gln       | Arg       | Glu<br>45  | Met        | Trp       | Lys       |
| Glu<br>50 | Leu        | Lys        | Lys        | Pro       | Pro       | Phe<br>55  | Val        | Pro        | Asn       | Ser       | Thr<br>60 | Leu        | Pro        | Ile       | Phe       |
| Tyr<br>65 | Ala        | Thr        | Gln        | Thr       | Leu<br>70 | Ser        | Phe        | Trp        | Val       | Pro<br>75 | Phe       | Leu        | Gln        | Met       | Asp<br>80 |
| Leu       | Leu        | Arg        | Arg        | Ile<br>85 | Ile       | Val        | Phe        | His        | Val<br>90 | Phe       | Ser       | Pro        | Gln        | Val<br>95 | Thr       |
| Lys       | Ile        | Asn        | Ile<br>100 | Cys       | Ile       | Tyr        | Asn        | Leu<br>105 | Tyr       | Tyr       | Cys       | Tyr        | Ile<br>110 | Phe       | Val       |
| Asp       | Asn        | Thr<br>115 | Phe        | Arg       | Trp       | Cys        | Trp<br>120 | Val        | Ile       | Tyr       | Tyr       | Asn<br>125 | Leu        | Asn       | Leu       |
| Gly       | Ile<br>130 | Ser        | Phe        | Gly       | Leu       | Pro<br>135 | Gln        | Ser        | Cys       |           |           |            |            |           |           |

<210> 632  
 <211> 91  
 <212> PRT  
 <213> homo sapiens

<400> 632

|          |           |           |           |          |     |           |           |           |           |     |           |           |           |           |     |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Trp<br>1 | Val       | Lys       | Gly       | Arg<br>5 | Lys | Gly       | Lys       | Pro       | Trp<br>10 | Ser | Ser       | Asn       | Pro       | Ile<br>15 | Ser |
| Ser      | Ser       | Phe       | Pro<br>20 | Leu      | Pro | Ala       | Ala       | Lys<br>25 | Lys       | Lys | Lys       | Lys       | Gly<br>30 | Asn       | Val |
| Tyr      | His       | Glu<br>35 | Ser       | Thr      | Gly | Phe       | Gln<br>40 | Ser       | Leu       | Ser | Lys       | Arg<br>45 | Asp       | Val       | Glu |
| Arg      | Ala<br>50 | Lys       | Glu       | Thr      | Thr | Leu<br>55 | Cys       | Ser       | Gln       | Leu | His<br>60 | Phe       | Thr       | His       | Ile |

002221 55552950

|           |     |     |     |     |           |     |     |     |     |           |     |     |     |     |           |
|-----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|
| Leu<br>65 | Cys | Asn | Thr | Asn | Thr<br>70 | Val | Leu | Leu | Gly | Pro<br>75 | Phe | Leu | Thr | Asp | Gly<br>80 |
|-----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|

|     |     |     |     |           |     |     |     |     |           |     |
|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Pro | Leu | Glu | Lys | Asn<br>85 | Tyr | Arg | Ile | Pro | Arg<br>90 | Phe |
|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|

<210> 633  
 <211> 111  
 <212> PRT  
 <213> homo sapiens

<400> 633

|           |     |           |            |           |           |           |           |            |           |           |           |           |            |           |           |
|-----------|-----|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| Arg<br>1  | Asn | His       | Ala        | Lys<br>5  | Ile       | Gln       | Leu       | Pro        | Met<br>10 | Gln       | Ala       | Pro       | Gln        | Ser<br>15 | Leu       |
| Ile       | Leu | Ser       | Ser<br>20  | Gln       | Phe       | Cys       | Cys       | Gln<br>25  | Ala       | Thr       | Val       | Val       | Trp<br>30  | Arg       | Leu       |
| Val       | Gly | Cys<br>35 | Cys        | Pro       | Cys       | Cys       | Asn<br>40 | Glu        | Trp       | Glu       | Glu       | Val<br>45 | Asp        | Ser       | Gly       |
| Met<br>50 | Val | Glu       | Thr        | Phe       | Thr       | Ser<br>55 | Ser       | Ser        | Pro       | Ala       | Thr<br>60 | Gly       | Ile        | Pro       | Pro       |
| Arg<br>65 | Pro | Val       | Leu        | Cys       | Cys<br>70 | Gly       | Gly       | Arg        | Phe       | Lys<br>75 | Ser       | Lys       | Lys        | Leu       | Leu<br>80 |
| Phe       | Glu | Val       | Gly        | Phe<br>85 | Ala       | Val       | Trp       | Phe        | Lys<br>90 | Xxx       | His       | Asp       | Ala        | Ile<br>95 | Ala       |
| Xxx       | Glu | Arg       | Pro<br>100 | Ser       | Lys       | Asp       | Ser       | Gly<br>105 | Leu       | Pro       | Gly       | Leu       | Glu<br>110 | Asn       |           |

<210> 634  
 <211> 89  
 <212> PRT  
 <213> homo sapiens

<400> 634

|           |     |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Leu<br>1  | Arg | Arg       | Asn       | Cys<br>5  | Pro       | Val       | Gln       | Arg       | Pro<br>10 | Thr       | Phe       | Pro       | Phe       | Ala<br>15 | Pro       |
| His       | Leu | Phe       | Arg<br>20 | Thr       | Pro       | Leu       | His       | Thr<br>25 | Leu       | Gln       | Pro       | Pro       | Lys<br>30 | Val       | Pro       |
| Gly       | Ser | Gly<br>35 | Phe       | Leu       | His       | Pro       | Ala<br>40 | Ala       | Ala       | Thr       | Asn       | Ala<br>45 | Asn       | Ser       | Leu       |
| Asn<br>50 | Ser | Thr       | Phe       | Ser       | Val       | Leu<br>55 | Pro       | Gln       | Arg       | Phe       | Pro<br>60 | Gln       | Phe       | Gln       | Gln       |
| His<br>65 | Arg | Ala       | Val       | Tyr       | Asn<br>70 | Ser       | Phe       | Ser       | Phe       | Pro<br>75 | Gly       | Gln       | Ala       | Ala       | Arg<br>80 |
| Tyr       | Pro | Trp       | Met       | Ala<br>85 | Phe       | Pro       | Xxx       | Gln       |           |           |           |           |           |           |           |

<210> 635  
 <211> 89  
 <212> PRT  
 <213> homo sapiens

09673395 122700

<400> 635

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Phe<br>1  | Ile       | Gln       | Phe       | Ser<br>5  | Arg       | Pro       | Gly       | Ser       | Pro<br>10 | Leu       | Ser       | Leu       | Asp       | Gly<br>15 | Leu       |
| Ser       | Xxx       | Ala       | Ile<br>20 | Ala       | Ser       | Cys       | Xxx       | Leu<br>25 | Asn       | His       | Thr       | Ala       | Asn<br>30 | Pro       | Thr       |
| Ser       | Asn       | Ser<br>35 | Asn       | Phe       | Leu       | Asp       | Leu<br>40 | Asn       | Leu       | Pro       | Pro       | Gln<br>45 | His       | Asn       | Thr       |
| Gly       | Leu<br>50 | Gly       | Gly       | Ile       | Pro       | Val<br>55 | Ala       | Gly       | Glu       | Glu       | Glu<br>60 | Val       | Lys       | Val       | Ser       |
| Thr<br>65 | Met       | Pro       | Leu       | Ser       | Thr<br>70 | Ser       | Ser       | His       | Ser       | Leu<br>75 | Gln       | Gln       | Gly       | Gln       | Gln<br>80 |
| Pro       | Thr       | Ser       | Leu       | His<br>85 | Thr       | Thr       | Val       | Ala       |           |           |           |           |           |           |           |

00673395-122700

276

265

295

312